

**GUIDED ACCEPTANCE AND COMMITMENT  
THERAPY (ACT) SELF-HELP FOR CLIENTS ON A  
WAITING LIST FOR PSYCHOLOGICAL THERAPY**

**Kate Davies, BSc. (Hons)**

**Doctorate in Clinical Psychology**

University of Lincoln  
College of Social Science  
School of Psychology

A thesis submitted in partial fulfilment of the  
requirements of the University of Lincoln for the  
degree of Doctor of Clinical Psychology.

**July 2018**



## **Thesis Abstract**

### **Background**

Waiting lists for clinical psychology services in the UK are long. A low-cost, transdiagnostic waiting list intervention could improve experiences and initiate processes of psychotherapeutic change. Guided Acceptance and Commitment Therapy (ACT) self-help holds promise in this regard – with evidence supporting its efficacy in other contexts – but has not yet been tested as a waiting list intervention. Moreover, research needs to explore underlying change-processes. Do outcomes (where present) follow the predictions of the Phase Model of Psychotherapeutic Outcome (PMPO), and are outcomes mediated by psychological flexibility, and its theorised sub-components, as posited by ACT?

### **Method**

A multiple-baseline single-case experimental design was utilised to explore participant outcomes in psychological flexibility (and its theorised subcomponents), well-being, symptomatology, and life-functioning, during a 10-week phone-guided ACT self-help intervention. Analysis assessed levels of clinical/reliable change, and graphical plots of weekly scores were subjected to visual analysis utilising dual criterion and percentage of non-overlapping data methodology. Average percentage change on each measure was also calculated. Participants then engaged in a post-intervention change interview to triangulate results.

### **Results**

Seven participants were recruited, with three participants completing the full 10-week intervention. Of the three who completed the intervention, two experienced clinically significant improvements in psychological flexibility, well-being, and symptomatology, and trends towards improvement in life-functioning, and the other participant experienced no significant changes in outcomes. The

greatest average percentage improvement was in well-being, followed by symptomatology, then life-functioning – as predicted by the PMPO. However, visual analysis of weekly outcomes indicated a temporal order whereby symptomatology changed first. Links between psychological flexibility and outcomes were supported, with changes in psychological flexibility preceding or co-occurring with other outcomes, and indication that processes relating to “openness to experience” were most influential. Outcomes experienced by the four individuals who withdrew from the intervention were both supportive and counterintuitive to the main results; however, external life-factors, and the reduced number of completed weeks, reduce the generality of the results.

All participants attributed outcomes to both life-events and the intervention and placed emphasis on the positive impact of the guiding phone calls. Feedback also indicated that the intervention requires adaptation to improve accessibility prior to future implementation.

## **Discussion**

Results indicate that a guided ACT self-help intervention produces outcomes that are (1) evidenced to predict later therapeutic results, (2) partially follow the temporal predictions of the PMPO, and (3) are likely mediated by changes in psychological flexibility (in particular “openness to experience”). The utility of the single-case experimental design has been supported, however, its limitations need to be considered when generalising results. Future research should continue exploration into ACT processes, and the application of guided ACT self-help interventions in such populations.

## **Acknowledgements**

I would like to take this opportunity to thank all the individuals without whom this thesis would not be possible. Firstly, thank you to the research participants for contributing your time and dedication to the project and your willingness to put your all into the study.

Secondly, I would like to thank the staff of the Trent Doctoral Program. Especially my research supervisors Nima Golijani-Moghaddam and Thomas Schröder, who were so patient with my endless questions! I could not have done it without you. Thank you also to Judith Tompkins, whose calm and collected attitude kept me sane during multiple administration stresses.

A special thank you goes to Becky Blacker and the Lincolnshire Partnership NHS Foundation Trust (LPFT) Adult Psychology and Psychotherapy Services in Lincolnshire East and West, who put in endless hours to provide me with participants, rooms, inspiration, and support. It was a pleasure to work with such a dedicated team. Denise Sorrell, thank you for the countless hours you put in to sorting all the paperwork and envelopes!

Further to this, the two Assistant Psychologists Sheryl Kennedy-Wright and Emma Wallis... I don't even know where to begin! Thank you both for, not just the hours you put in to provide the guided phone calls, but for your dedication, autonomy, and pure enthusiasm to help get this project up and running. Both your hard work and your humour kept me sane. Sheryl, I remain traumatised by the hours we spent together typing on the computer! Thank you.

Finally, thank you to my family and friends for their enduring support, despite me seeming to disappear for three years! Your love and support got me through. Thank you also to my late grandfather, Kenneth Poole, for your ongoing inspiration. The biggest thank you goes to Blyth Davies, my fiancé. The endless hours you put into visiting me, hugging me, making me laugh, and encouraging me not to quit...I could not have done this without you. This thesis is for you.

## Statement of Contribution

Table 1

### *Statement of Contribution*

| Contribution                                     | Contributors   |
|--|--|
| Project design                                   | Kate Davies, Dr Nima Golijani-Moghaddam, Professor Thomas Schröder, Dr Rebecca Blacker   |
| Systematic Literature Review                     | Kate Davies, Dr Nima Golijani-Moghaddam, Professor Thomas Schröder   |
| Applying for ethical approval                    | Kate Davies (supervised by Dr Nima Golijani-Moghaddam and Professor Thomas Schröder)   |
| Self-help book permissions                       | Dr Steven Hayes, New Harbinger Publications  |
| Adaption of self-help book                       | Kate Davies, Sheryl Kennedy-Wright   |
| Focus group                                      | Kate Davies, Service User and Carer's Advisory Panel (SUCAP) Nottingham UK   |
| Fidelity checks                                  | Kate Davies, Dr Nima Golijani-Moghaddam, Dr Dave Dawson  |
| Recruitment of participants and Service Feedback | Kate Davies, Dr Rebecca Blacker, Sheryl Kennedy-Wright, Emma Wallis, Denise Sorrell, Dr Tracey Swaffer, Lincolnshire Partnership NHS Foundation Trust East and West Adult Psychology and Psychotherapy Service |
| Guided phone calls                               | Sheryl Kennedy-Wright, Emma Wallis, Jade Weightman   |
| Administration                                   | Denise Sorrell, Judith Tompkins  |
| Conducting change interviews                     | Kate Davies  |
| Transcription                                    | Helen Smith  |
| Data collection and scoring                      | Kate Davies (supervised by Dr Nima Golijani-Moghaddam and Professor Thomas Schröder)   |
| Thesis Write-up                                  | Kate Davies (supervised by Dr Nima Golijani-Moghaddam and Professor Thomas Schröder)   |

## Contents

|   |    |
|---|----|
| Thesis Abstract.....                        | 01 |
| Acknowledgements.....                       | 03 |
| Statement of Contribution.....              | 05 |
| Contents.....                               | 08 |
| List of Tables.....                         | 11 |
| List of Figures.....                        | 13 |
| List of Appendices.....                     | 15 |
| Systematic Review.....                      | 17 |
| Highlights.....                             | 20 |
| Abstract.....                               | 21 |
| Introduction.....                           | 22 |
| Acceptance and Commitment Therapy.....      | 22 |
| The Role of Self-Help in Psychotherapy..... | 24 |
| ACT and Self-Help.....                      | 25 |
| Purpose of the Systematic Review.....       | 26 |
| Method.....                                 | 27 |
| Search Strategy.....                        | 27 |
| Selection Criteria.....                     | 27 |
| Data Extraction.....                        | 31 |
| Data Analysis.....                          | 31 |
| Results.....                                | 34 |
| Study Characteristics.....                  | 34 |
| Study Designs.....                          | 49 |
| Sample Sizes.....                           | 49 |
| Intervention Characteristics.....           | 50 |
| Intervention Attrition and Engagement.....  | 50 |
| Risk of Bias.....                           | 50 |
| Meta-Analysis.....                          | 53 |

|   |     |
|---|-----|
| Depression Outcomes.....  | 64  |
| Anxiety Outcomes.....   | 59  |
| Psychological Flexibility Outcomes.....   | 64  |
| Impact of ACT Processes on Anxiety and Depression Outcomes.....                                   | 70  |
| Discussion.....   | 71  |
| What is the Quality of Current Research into ACT Self-Help?.....                                  | 71  |
| What is the Efficacy of ACT Self-Help on Depression, Anxiety, and Psychological Flexibility?..... | 72  |
| Does the Format of Delivery or Guidance Impact Outcomes?.....                                     | 73  |
| Does Psychological Flexibility Moderate Depression and Anxiety Outcomes?.....                     | 74  |
| Generalizability of Conclusions and Limitations of Review.....                                    | 74  |
| Implications for Practice and Future Research.....  | 75  |
| References.....   | 77  |
| Journal Paper.....  | 91  |
| Highlights.....   | 94  |
| Abstract.....   | 95  |
| Introduction.....   | 97  |
| Waiting Lists.....  | 97  |
| Waiting List Interventions.....   | 98  |
| Phase Model of Psychotherapeutic Outcome.....   | 99  |
| Subjective Well-being.....  | 100 |
| Symptomatology.....   | 100 |
| Life-Functioning.....   | 101 |
| ACT and Transdiagnostic Effects.....  | 102 |
| ACT Self-Help.....  | 104 |
| Research Questions.....   | 105 |
| Methods.....  | 106 |
| Design.....   | 106 |
| Recruitment.....  | 106 |



|   |     |
|---|-----|
| The Intervention.....   | 107 |
| Measures.....   | 110 |
| Procedure.....  | 117 |
| Analysis.....   | 119 |
| Results.....  | 120 |
| Participants.....   | 120 |
| Clinically Significant Change.....  | 125 |
| Time-Series Graphs.....   | 129 |
| Change Interviews.....  | 132 |
| Discussion.....   | 138 |
| Does a Guided ACT Self-Help Intervention produce Outcomes<br>Evidenced to Predict Later Therapeutic Outcome?..... | 138 |
| Do these Outcomes Follow the Temporal Predictions of the<br>PMPO?.....  | 139 |
| Do ACT Processes Account for any Observed Changes in<br>Outcomes?.....  | 140 |
| Acceptability of the Intervention.....  | 141 |
| Generalisability of Conclusions, Strengths, and Limitations.....  | 142 |
| Implications for Clinical Practice and Future Research.....   | 144 |
| References.....   | 146 |
| Extended Paper.....   | 173 |
| 1. Extended Introduction.....   | 175 |
| 1.1. Rationale for Target Journal.....  | 175 |
| 1.2. Common Mental Disorders.....   | 175 |
| 1.3. Increasing Access to Psychological Therapies.....  | 178 |
| 1.4. Epidemiology and Impact of Waiting Lists.....  | 180 |
| 1.5. Current Service Provision within LPFT Step-4 Services.....   | 182 |
| 1.6. Evidence Base for the Phase Model of Psychotherapeutic<br>Outcome.....                                       | 183 |
| 1.7. Defining Subjective Well-Being within the Context of<br>Positive Mental Health.....                          | 186 |
| 1.8. Quality of Life in Relation to Life-Functioning and Well-<br>Being.....                                      | 189 |

|  |     |
|--|-----|
| 1.9. Defining Symptomatology.....                                    | 190 |
| 1.10. Defining Life-Functioning.....                                 | 192 |
| 1.11. Relational Frame Theory.....                                   | 192 |
| 1.11.1. Experiential Avoidance.....                                  | 195 |
| 1.11.2. Cognitive Fusion.....  | 196 |
| 1.12. Transdiagnostic Application of ACT and the Core Processes..... | 197 |
| 1.12.1. Acceptance.....  | 198 |
| 1.12.2. Cognitive Defusion.....                                      | 198 |
| 1.12.3. Being Present.....   | 199 |
| 1.12.4. Self as Context.....   | 199 |
| 1.12.5. Values.....  | 199 |
| 1.12.6. Committed Action.....  | 200 |
| 1.13. Evidence Base of ACT Self-Help.....                            | 200 |
| 1.14. Research Rationale and Clinical Relevance.....                 | 203 |
| 2. Extended Method.....  | 204 |
| 2.1. Epistemology.....   | 204 |
| 2.2. Single-Case Experimental Design.....                            | 205 |
| 2.3. Ethical Considerations.....                                     | 207 |
| 2.4. Area of Recruitment.....  | 210 |
| 2.5. Inclusion and Exclusion Criteria.....                           | 210 |
| 2.6. Phase of Recruitment.....                                       | 212 |
| 2.7. Sample Size.....  | 215 |
| 2.8. Book Choice and Amendments.....                                 | 216 |
| 2.9. Guided Phone Calls.....   | 220 |
| 2.10. Service User and Carers' Advisory Panel.....                   | 221 |
| 2.11. Outcome Measures.....  | 223 |
| 2.11.1. Measure of Well-Being.....                                   | 224 |
| 2.11.2. Measure of Symptomatology.....                               | 225 |
| 2.11.3. Measure of Life-Functioning.....                             | 226 |
| 2.11.4. Measures of Psychological Flexibility.....                   | 227 |

|   |     |
|---|-----|
| 2.11.5. Additional Outcome Measures.....              | 229 |
| 2.12. Baseline Phase.....                             | 234 |
| 2.13. Intervention Phase.....                         | 235 |
| 2.14. Post-Intervention Meeting.....                  | 236 |
| 2.15. Semi-Structured Change Interview.....           | 237 |
| 2.16. Fidelity Checks of Phone Calls.....             | 238 |
| 2.17. Reliable and Clinically Significant Change..... | 238 |
| 2.17.1. Reliable Change.....                          | 239 |
| 2.17.2. Clinically Significant Change.....            | 240 |
| 2.17.3. Normative Data.....                           | 242 |
| 2.18. Analysis of Average Percentage Change.....      | 245 |
| 2.19. Visual Analysis.....                            | 246 |
| 2.20. Analysis of Change Interview.....               | 248 |
| 2.21. Additional Analyses.....                        | 249 |
| 3. Extended Results.....                              | 250 |
| 3.1. Results of Participants Who Withdrew.....        | 250 |
| 3.1.1. Demographic Details.....                       | 250 |
| 3.1.2. Quantitative Outcomes.....                     | 256 |
| 3.1.3. Change Interviews.....                         | 259 |
| 3.2. Fidelity Checks.....                             | 265 |
| 3.3. Pre-, Mid-, and Post-Intervention Scores.....    | 265 |
| 3.4. Analysis of Average Percentage Improvements..... | 267 |
| 3.5. Additional Results of the CORE-OM.....           | 268 |
| 3.6. Additional Results of the ACT Subscales.....     | 269 |
| 3.6.1. Openness to Experience.....                    | 271 |
| 3.6.2. Behavioural Awareness.....                     | 272 |
| 3.6.3. Valued Action.....                             | 273 |
| 3.7. Overall Synthesis.....                           | 280 |
| 3.8. Summary of Results for Each Participant.....     | 281 |
| 3.8.1. Jake (P1) .....                                | 281 |

|   |     |
|---|-----|
| 3.8.2. Lucy (P2) .....  | 282 |
| 3.8.3. Kim (P3) .....   | 283 |
| 3.8.4. Amber (P4) .....   | 284 |
| 3.8.5. Ron (P5) .....   | 285 |
| 3.8.6. Rebecca (P6) .....   | 286 |
| 3.8.7. Samuel (P7) .....  | 287 |
| 4. Extended Discussion.....   | 289 |
| 4.1. Discussion of Additional Findings.....                                       | 289 |
| 4.1.1. CompACT Subscale Outcomes.....   | 289 |
| 4.1.2. CORE Outcomes.....   | 290 |
| 4.2. Acceptability and Feasibility.....   | 291 |
| 4.3. Generalisability of Study Sample when Informing Service<br>Delivery.....     | 293 |
| 4.4. Critique of Analytic Strategy.....   | 294 |
| 4.4.1. Critique of RCI and CSC Methodology.....                                   | 294 |
| 4.4.2. Critique of Average Percentage Change<br>Methodology.....                  | 295 |
| 4.4.3. Critique of Visual Analysis Methodology.....                               | 296 |
| 4.5. Generalising Results to Inform Clinical Practice and Future<br>Research..... | 298 |
| 5. Critical Reflection.....   | 300 |
| 5.1. Scientific Reflections.....  | 300 |
| 5.2. Ethical Reflections.....   | 303 |
| 5.3. Theoretical Reflections.....   | 304 |
| 5.4. Summary of Reflections.....  | 306 |
| Extended References.....  | 307 |
| Appendices.....   | 349 |
| Poster.....   | 433 |

## List of Tables

|  |     |
|--|-----|
| Table 1: Statement of Contribution.....  | 05  |
| Table 2: Six Core Processes of ACT.....  | 23  |
| Table 3: Levels of Self-Help.....  | 25  |
| Table 4: Selection Criteria.....   | 28  |
| Table 5: Characteristics of Studies Selected for Review.....   | 35  |
| Table 6: Risk of Bias Criterion.....   | 51  |
| Table 7: Risk Bias of Selected Studies.....  | 52  |
| Table 8: Depression Symptom Outcomes.....  | 55  |
| Table 9: Anxiety Symptom Outcomes.....   | 60  |
| Table 10: Psychological Flexibility Outcomes.....  | 65  |
| Table 11: Correlations of Effect Sizes of Depression, Anxiety, and<br>Psychological Flexibility..... | 70  |
| Table 12: Six Core Processes of ACT.....   | 103 |
| Table 13: Ten Week Intervention and Related ACT Processes.....                                       | 109 |
| Table 14: Outcome Measures.....  | 111 |
| Table 15: Outcome Measure Timeline.....  | 118 |
| Table 16: Participants.....  | 122 |
| Table 17: Average Percentage Improvements.....   | 125 |
| Table 18: Time Series PND Outcomes and Interpretations.....  | 130 |
| Table 19: Change Interviews.....   | 133 |
| Table 20: Keyes' Three Components of Subjective Well-Being.....                                      | 189 |
| Table 21: The Three Components of a Relational Frame.....  | 194 |
| Table 22: Rationale for Inclusion and Exclusion Criteria.....  | 211 |
| Table 23: Extended Table of the Ten Week Intervention and Related ACT<br>Processes.....              | 217 |
| Table 24: Example Book Amendments.....   | 219 |
| Table 25: SUCAP Feedback and Actions.....  | 222 |
| Table 26: Additional Outcome Measures.....   | 230 |
| Table 27: Criteria for Clinically Significant Change.....  | 241 |

|   |     |
|---|-----|
| Table 28: Psychometric Properties and Reference Group Norms of Measures.          | 243 |
| Table 29: Comparison of Clinical Norms to Study Sample.....                       | 245 |
| Table 30: PND Criteria.....   | 248 |
| Table 31: Withdrawn Participant Details.....                                      | 252 |
| Table 32: Time Series PND Outcomes and Interpretations for Non-Completers.....    | 257 |
| Table 33: Change Interviews of Non-Completers.....                                | 260 |
| Table 34: Fidelity Checks of Guided Phone calls.....                              | 265 |
| Table 35: Pre-, Mid-, and Post-Intervention Scores of Completers.....             | 266 |
| Table 36: Pre-, Mid-, and Post-Intervention Scores of Non-Completers.....         | 267 |
| Table 37: Percentage Improvements.....  | 268 |
| Table 38: Average Percentage Improvements in CompACT Subscales.....               | 270 |
| Table 39: Time Series PND Outcomes and Interpretations for CompACT Subscales..... | 279 |
| Table A1: Search Strategy.....  | 351 |
| Table A2: Search Strategy.....  | 352 |

## List of Figures

|  |     |
|--|-----|
| Figure 1: Flow Chart of Study Selection.....   | 30  |
| Figure 2: Formula for Standard Mean Difference.....                                    | 32  |
| Figure 3: Formula for Heterogeneity.....   | 33  |
| Figure 4: Funnel Plots of Post-Intervention Effect Sizes by Standard Error.....        | 53  |
| Figure 5: Depression Outcomes Forest Plot.....   | 57  |
| Figure 6: Anxiety Outcomes Forest Plot.....  | 62  |
| Figure 7: Psychological Flexibility Outcomes Forest Plot.....                          | 68  |
| Figure 8: Participant Journey.....   | 118 |
| Figure 9: Outcome Measure Scores at Pre-, Mid-, and Post-Intervention Time Points..... | 127 |
| Figure 10: Weekly Scores over Baseline and Intervention.....                           | 131 |
| Figure 11: Stepped Care Model.....   | 179 |
| Figure 12: Keye's Dual Continua Model of Mental Health.....                            | 187 |
| Figure 13: The ACT Hexaflex of Psychological Flexibility.....                          | 198 |
| Figure 14: Research Design.....  | 207 |
| Figure 15: Recruitment Flow-Chart.....   | 213 |
| Figure 16: Participant Recruitment Process.....  | 214 |
| Figure 17: Pre-Intervention Meeting.....   | 215 |
| Figure 18: Post-Intervention Meeting.....  | 237 |
| Figure 19: Formula for Determining Reliable Change.....                                | 239 |
| Figure 20: Formula for Standard Error of Difference.....                               | 239 |
| Figure 21: Formula for Standard Error of Measurement.....                              | 240 |
| Figure 22: Formula for Reliable Change Index.....                                      | 240 |
| Figure 23: Formula for Criterion C.....  | 242 |
| Figure 24: Formula for Percentage Change.....  | 246 |
| Figure 25: Formula for Average Percentage Change.....                                  | 246 |
| Figure 26: Weekly Scores of Non-Completers over Baseline and Intervention.....         | 258 |
| Figure 27: CORE-OM Scores at Pre- and Post-Intervention Time Points.....               | 269 |

|   |     |
|---|-----|
| Figure 28: CompACT Subscale Scores at Pre-, Mid-, and Post-Intervention Time Points.....        | 270 |
| Figure 29: Amber's Weekly CompACT Subscale Scores over Baseline and Intervention.....           | 274 |
| Figure 30: Ron's Weekly CompACT Subscale Scores over Baseline and Intervention.....             | 275 |
| Figure 31: Samuel's Weekly CompACT Subscale Scores over Baseline and Intervention.....          | 276 |
| Figure 32: Jake and Lucy's Weekly CompACT Subscale Scores over Baseline and Intervention.....   | 277 |
| Figure 33: Kim and Rebecca's Weekly CompACT Subscale Scores over Baseline and Intervention..... | 278 |
| Figure 34: Salkovskis' Hourglass Model of Psychotherapeutic Research.....                       | 299 |



## **List of Appendices**

|  |     |
|--|-----|
| Appendix A: Search Strategies.....                     | 351 |
| Appendix B: Ethical Approval.....                      | 353 |
| Appendix C: Information Sheet.....                     | 366 |
| Appendix D: Consent Form.....                          | 375 |
| Appendix E: Demographic Data.....                      | 378 |
| Appendix F: GP Letters.....                            | 379 |
| Appendix G: Book Permissions.....                      | 382 |
| Appendix H: Weekly Scripts for Guided Phone calls..... | 385 |
| Appendix I: Outcome Measure Permissions.....           | 414 |
| Appendix J: Outcome Measures.....                      | 417 |
| Appendix K: Semi-Structured Change Interview.....      | 431 |



## **Systematic Review**



# **What is the Evidence for the Efficacy of Self-Help Acceptance and Commitment Therapy? A Systematic Review and Meta-Analysis <sup>1</sup>**

Kate French<sup>a</sup>

Nima Golijani-Moghaddam<sup>a</sup>

Thomas Schröder<sup>b</sup>

<sup>a</sup>Trent Doctorate in Clinical Psychology, College of Social Sciences, University of Lincoln, 1<sup>st</sup> Floor, Bridge House, Brayford Pool, Lincoln, LN6 7TS, UK.

<sup>b</sup>Trent Doctorate in Clinical Psychology, Division of Psychiatry & Applied Psychology, University of Nottingham, YANG Fujia Building, B Floor Jubilee Campus, Wollaton Road, Nottingham, NG8 1BB, UK.

**Funding:** This work was supported by the Trent Doctorate in Clinical Psychology, College of Social Sciences, Bridge House, University of Lincoln, 1<sup>st</sup> Floor, Brayford Pool, Lincoln, LN6 7TS, UK.

**Corresponding Author:** Kate French; 15591146@students.lincoln.ac.uk

**Formatted for submission to:** Journal of Contextual Behavioral Science (JCBS) in accordance to their Author Information Pack:

*[www.elsevier.com/locate/jcbs](http://www.elsevier.com/locate/jcbs)*

---

<sup>1</sup> The included Systematic Literature Review is the version that was submitted to the JCBS following input from the co-authors. It has since been peer reviewed and published (French, Golijani-Moghaddam, Schröder, 2017). The publication was submitted under the first author's previous name (Kate French).

## Highlights<sup>2</sup>

- ACT self-help has small effects on depression, anxiety, and psychological flexibility
- Greater clinician guidance is seen to improve outcomes
- The effect sizes are not influenced by the self-help format of delivery
- Psychological flexibility is a likely moderator of depression and anxiety outcomes
- Methodology and reporting flaws may be causing ‘overselling’ of ACT self-help

---

<sup>2</sup> Feature of target journal.

## Abstract

Acceptance and Commitment Therapy (ACT) is a form of psychotherapy with growing evidence for its transdiagnostic effects. Traditionally face-to-face, ACT is also delivered in self-help formats. As self-help is becoming more prevalent, the demand for empirical evidence of the efficacy of ACT self-help is increasing, and there are concerns that intervention outcomes are being 'over-sold' (O'Donohue, Snipes, & Soto, 2016; Rosen & Lilienfeld, 2016). A systematic search of the literature was conducted to find all peer-reviewed randomized controlled trials investigating the efficacy of ACT self-help on depression, anxiety, and/or psychological flexibility. Thirteen studies were identified and reviewed, totaling 2580 participants. A quality appraisal of the papers under review indicated bias in methodology and reporting that may be leading to an 'overselling' of the intervention. Meta-analysis showed significant small effect sizes favoring intervention for depression ( $g=0.34$ ; 95% CIs [0.07, 0.61];  $Z=2.49$ ,  $p=.01$ ), anxiety ( $g=0.35$ ; 95% CIs [0.09, 0.60];  $Z=2.66$ ,  $p=.008$ ), and psychological flexibility ( $g=0.42$ ; 95% CIs [0.14, 0.70];  $Z=2.93$ ,  $p=.003$ ) outcomes. Results indicate that higher levels of clinician guidance may improve outcomes but that intervention format (e.g. book/computer) is unlikely to moderate results. Analysis also shows psychological flexibility to positively correlate with depression ( $\rho=.70$ ,  $p=.25$ ,  $n=10$ ) and anxiety ( $\rho=.90$ ,  $p<.001$ ,  $n=10$ ), giving initial support for the theory that changes in psychological flexibility moderate distress outcomes. Therefore, ACT self-help may be a suitable intervention, particularly when clinician guidance is given. However, due to the small effect sizes, limited number of studies, and considerable heterogeneity of results, any conclusions made are tentative.

*Key Words:* Acceptance and Commitment Therapy; ACT; Self-Help; Meta-Analysis; Systematic Review.

## **Introduction**

### **Acceptance and Commitment Therapy**

Acceptance and Commitment Therapy (ACT) is a form of psychotherapy that aims to increase psychological flexibility (PF) and support individuals to embrace all aspects of the human experience (positive and negative) and live a value based life. It claims to achieve this through acceptance and mindfulness techniques paired with behavioral changes, and can be trans-diagnostically applied regardless of an individual's experienced difficulty (Hayes, Strosahl, & Wilson, 1999).

ACT has foundations in functional contextualism (Hayes, 1993) and Relational Frame Theory (RFT; Hayes, 1991). RFT states that language allows humans to make relational links between stimuli without direct experience, and that this ability that can lead to more complex cognitions and potential psychological distress. By increasing PF the impact of distressing relational links and cognitions are lessened and the individual freed to live the life they want (Hayes et al, 1999). However, ACT and RFT have been developed inductively, so more component analyses may be required to test these theoretical viewpoints (Zettle, 2005).

ACT has six 'core processes' (Table 2; Hayes, Strosahl, & Wilson, 2013). It is felt that all six processes are needed for an intervention to be called 'ACT', however, many interventions are beginning to utilize various components of ACT alongside other techniques (e.g. Lappalainen et al, 2013). It is also potentially difficult to quantify the true influence of 'ACT' as a whole package because some argue that ACT and other therapies share similar techniques but just use different terminology (Hofmann & Asmundson, 2008).

However, evidence for ACT is growing, and previous meta-analyses have shown its efficacy across a number of different difficulties (Öst, 2014; A-Tjak et al, 2015) and potential benefits over other therapies (Jiménez, 2012). This is disputed because many argue that research is bias towards the publication of positive results (Fanelli, 2012). Alternatively, levels of efficacy



may be higher due to ACT being an ‘exciting’ new therapy which may increase levels of expectation and improve outcomes (Constantino, Coyne, McVicar, & Ametrano, 2016). Öst (2014) also argued that research trials often have methodological flaws and that ACT had yet to become a fully established treatment.

Table 2

*Six core processes of ACT*

| Core Process       | Description   |
|--------------------|---|
| Acceptance         | Embracing all aspects of the human experience: positive and negative.                                   |
| Cognitive Defusion | Observing thoughts as an experience, rather than trying to modify their frequency or content.           |
| Being Present      | Making contact with, and observing, current experiences in a non-judgmental way.                        |
| Self as Context    | Recognizing one’s experiences without investment or attachment to them                                  |
| Values             | Living life following personal values that are not based on cognitive fusion or experiential avoidance. |
| Committed Action   | Creating goals and strategies in order to live a valued life, and committing to that behavior change.   |

## The Role of Self-Help in Psychotherapy

Whilst psychotherapy is traditionally face-to-face, many therapeutic models are being adapted into self-help, and in some cases, guided self-help has been found to be as efficacious as face-to-face therapy (Cuijpers, Donker, van Straten, Li, & Andersson, 2010; Andersson, Cuijpers, Carlbring, Riper, & Hedman, 2014). However, forms of self-help can vary in level of guidance and format. Therefore, efficacy is hard to judge without clear definitions.

Previous definitions state self-help should “*guide and encourage the patient to make changes... rather than just provide information*” (Anderson et al, 2005; pp. 387). It is stated that there are four variations of self-help (Table 3; Newman, Erickson, Przeworski, & Dzus, 2003, p. 253). Such variations make it difficult to generalize findings to any new self-help materials that are published. There is also a dearth of research when it comes to calculating whether self-help is better guided or non-guided and what the best format (e.g. book) is for administration.

This is important because self-help is becoming more prevalent for many reasons: (1) the Improving Access to Psychological Therapies (IAPT; a stepped care approach within the UK; Department of Health, 2007) has guided self-help as the first intervention ‘step’, (2) UK waiting lists are high (Mind, 2010; 2013) so individuals are more likely to seek self-help, and (3) increases in technology mean that self-help is more accessible (Newman, Szkodny, Llera, & Przeworski, 2011). The current evidence base is struggling to keep up with these changes.

Table 3

*Levels of Self-Help*

| Level of Self-Help                                 | Description  |
|--|--|
| Self-Administered Therapy (SA)                     | Therapist may make contact for assessment. No further contact following this.  |
| Predominantly Self-Help (PSH)                      | Therapist may make contact for assessment. Therapist may have further contact for periodic check-ins, teaching clients how to use the tool, providing initial therapeutic rationale. |
| Minimal Contact Therapy (MC)                       | Active involvement of therapist but to a lesser degree than traditional therapy. May help with certain aspects of the intervention (e.g. creating exposure hierarchy)                |
| Predominantly Therapist-Administered Therapy (PTA) | Client sees therapist for regular sessions, but self-help material may be given to supplement the therapy.   |

### **ACT and Self-Help**

ACT self-help is now readily available to the public. A search for “Acceptance and Commitment Therapy Self-Help” on *Amazon Books* ([www.amazon.co.uk](http://www.amazon.co.uk); 05/08/16) shows 102 hits. However, there is minimal published research investigating whether ACT self-help interventions are as effective as the authors claim.

For research that does exist, there is an argument that reporting standards are failing due to authors having a vested interest in promoting their interventions; for example, by only stating outcomes supporting their intervention, omitting data from ‘non-completer’ participants, and falsely claiming empirical support for published self-help books (O’Donohue, Snipes, &

Soto, 2016; Rosen & Lilienfeld, 2016). A systematic review is needed to assess the quality of each study without bias.

A systematic review was conducted in 2014 investigating the efficacy of acceptance and mindfulness based self-help (Cavanagh, Strauss, Forder, & Jones, 2014). However, its findings cannot be fully generalized to ACT self-help due to acceptance and mindfulness only making up two of the six core processes. If ACT is being promoted as a complete self-help 'package' than a review is needed of interventions that include *all* six core processes. More in-depth analysis is also needed considering the impact of (1) levels of clinician guidance, (2) self-help format, and (3) changes in PF or other outcomes. Comparisons not fully addressed in the Cavanagh review.

## **Purpose of the Systematic Review**

This review aims to investigate the efficacy of ACT self-help. However, when defining 'efficacy' this review is limited to what current literature is reporting. Due to ACT's transdiagnostic nature, the outcomes range from anxiety and distress to management skills and smoking. For pragmatic reasons, focus is placed on outcomes most often reported: depression and anxiety<sup>3</sup>. A third outcome, PF, is also analyzed. This enables exploration not only of the impact of intervention on PF, but also its moderating effects on depression and anxiety. As ACT is transdiagnostic, there no restrictions were placed on the participant population under review.

Therefore, this review focuses on published RCTs reporting the efficacy of ACT self-help on anxiety, depression, and PF. It aims to answer the following questions:

---

<sup>33</sup> *Note.* The ACT model does not aim to reduce symptomatology, rather to increase acceptance of it (Hayes et al, 1999). However, as clients and commissioners tend to target symptoms (Mental Health Taskforce, 2016), depression and anxiety are often favoured as intervention outcomes.

- What is the quality of current research into ACT self-help?
- What is the efficacy of ACT self-help on depression, anxiety, and PF?
- Does the format of delivery or guidance impact outcomes?
- Does PF moderate depression and anxiety outcomes?

## **Method**

### **Search Strategy**

A systematic search for articles was conducted across six electronic databases: Cochrane Central Register of Controlled Trials (12 June 2016), PsychARTICLES (Full Text), PsychINFO (1806 to July week 1 2016), Embase (1974 to 2016 July 13), AMED (1985 to July 2016), OvidMEDLINE(R) (In process and other non-indexed citations and OvidMEDLINE(R)), and the Joanna Briggs Institute (EBP database current to July 06 2016). The following search terms were used via a combination of key words and subject headings: ('acceptance and commitment therapy' OR 'ACT') AND ('self help' OR 'bibliotherapy' OR 'web based' OR 'internet based' OR 'application' OR 'mobile' OR 'internet' OR 'computer'). No date limit was imposed and the last search was conducted 14/07/2016. Appendix A details the search strategy.

### **Selection Criteria**

Following the systematic search of the literature, and removal of duplications, all titles and abstracts were reviewed for suitable articles. To ensure article selection was conducted systematically, set inclusion criteria were followed (Table 4). These were based upon study quality criteria (Treadwell, Singh, Talati, McPheeters, & Reston, 2011), study relevance criteria (ACT (Hayes et al, 2013), Self-help (Newman et al, 2003)), and relevance of outcome measures to ensure that each study could contribute to the review. The search was independently conducted by two of the review authors. A third

author was available to resolve selection disagreements; however, this was not required.

Table 4

*Selection Criteria*

| Inclusion Criteria  | Rationale  |
|---|--|
| <i>Basic Study Criteria</i>   |  |
| English Language Only   | Pragmatic reasons due to unavailability of translation.                          |
| Published within a peer reviewed journal  | To ensure quality that is expected as standard amongst the scientific community. |
| Uses an RCT design with a control condition (active or inactive)                      | Deemed gold standard for assessing efficacy.                                     |
| Uses validated outcome measures   | To ensure reliability of stated effect sizes.                                    |
| The study and/or author provides sufficient data to extract appropriate effect sizes. | To enable effective analysis within the review.                                  |
| <i>ACT Criteria</i>   |  |
| Needs to include all six core processes of ACT within the intervention                | To meet criteria for ACT intervention.   |

| Inclusion Criteria  | Rationale   |
|---|---|
| The intervention needs to be pure ACT (Not combined with other intervention models) or the effect sizes of the ACT component need to be extractable | To ensure that the effect sizes that are extracted are truly reflective of ACT interventions. |
| Control group cannot contain components of ACT  | To be able to extract impact of ACT self-help   |
| <i>Self-Help Criteria</i>   |   |
| Self-help can be defined through Newman et al (2003) criteria as 'self-administered therapy' (SA) or 'predominately self-help' (PSH)                | To meet criteria for self-help as defined in this review.                                     |
| More than just psychological information; individual is encouraged to partake in activities tailored towards positive change                        | To meet the criteria for self-help as defined in this review.                                 |
| <i>Outcome Measure Criteria</i>   |   |
| Must include measures of <i>at least one</i> of the following outcomes: depression, anxiety, or PF  | In order to be eligible for inclusion in meta-analysis  |

Initial application of the inclusion criteria based on titles and abstracts produced 33 potentially eligible articles. Full text versions were accessed and 14 articles excluded. The article list and inclusion criteria were then sent to experts in the field and the academic community within the Association for Contextual Behavioral Science (<https://contextualscience.org/acbs>) to check for missing articles. One article was identified (Ritzert et al, 2016) which was

previously missed due to recent publication at the time of the search (July, 2016). The reference list and recorded citations of each article were reviewed and a search conducted on *ClinicalTrials.gov* for upcoming RCTs. Protocol authors were contacted ( $n=8$ ) and four responded, however, none had yet reached publication. Newly identified articles were subject to the same inclusion criteria. Twenty articles met criteria for inclusion (Figure 1). As a number of the articles were reporting on the same studies, this equated to 13 studies (2580 participants).

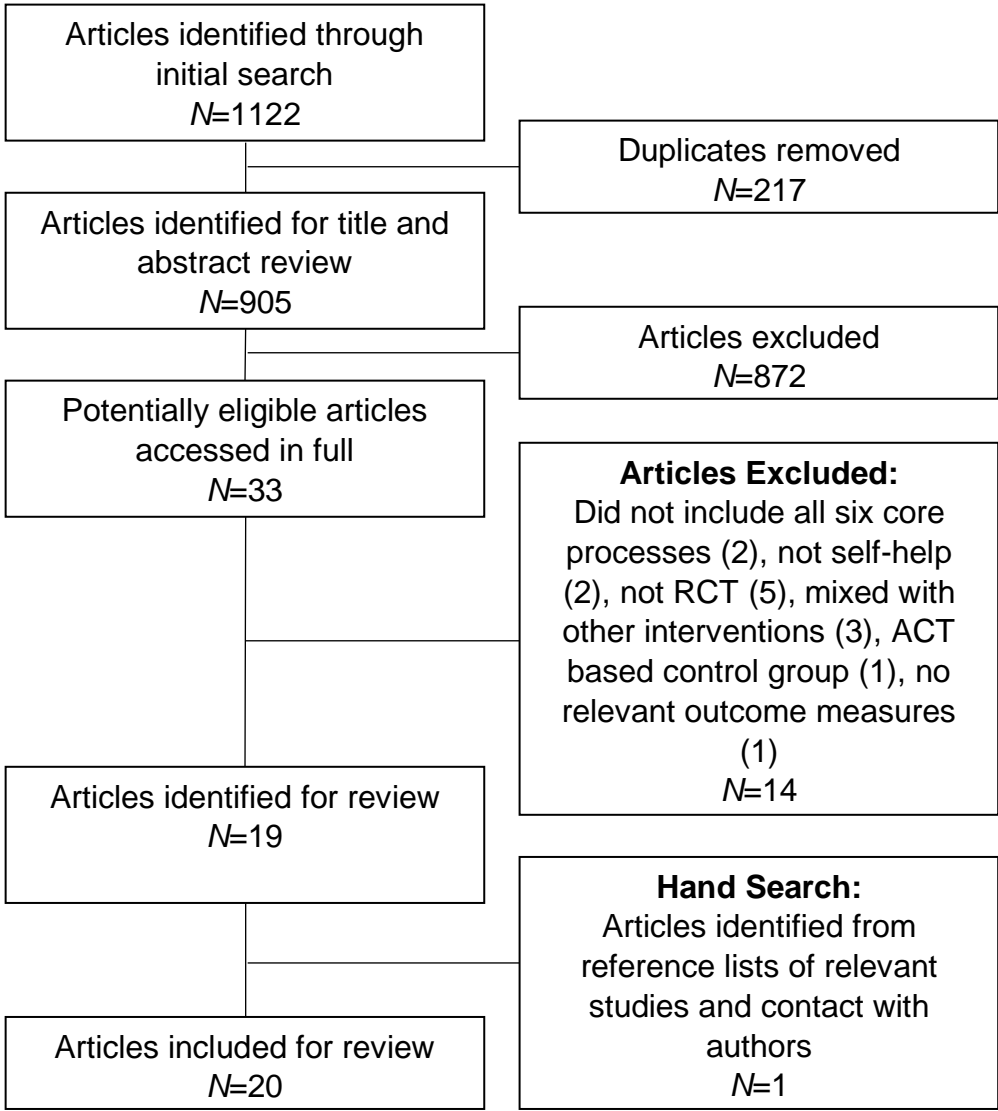


Figure 1. Flow Chart of Study Selection



## **Data Extraction**

Participant characteristics were collected (number recruited/randomized, attrition rates, diagnoses), along with the control groups (active/passive) and details of each intervention's duration and format (book based (BB) or computer based (CB), self-administered (SA) or predominantly self-help (PSH)).

Post-intervention means and standard deviations were collected for all control and intervention groups. Whenever possible, data analyzed using an Intention to Treat (ITT) protocol was collected as non-ITT data can produce misleading results (BMJ, 2015). If more than one control condition was included, passive control groups were chosen in order to maximize study homogeneity. Data was only collected for measures quantifying depression, anxiety, or PF. If a study had multiple measures on an outcome, the measure with the best psychometric properties was used. Any analyses investigating the mediating effects of PF were also extracted. For studies missing needed post-intervention data (Bricker et al, 2013; 2014; Ritzert et al, 2016), authors were contacted and relevant data received.

## **Data Analysis**

Prior to meta-analysis, a risk of bias assessment was conducted, as less rigorous studies can lead to potentially misleading results (Detsky, Naylor, O'Rourke, McGeer, & L'Abbé, 1992). The assessment was conducted systematically following Cochrane guidelines (Higgins & Green, 2011) and was conducted independently by two of the review authors. When disagreements occurred between the author ratings, discussion were held with the third author to ensure group consensus. However, there is still a level of author interpretation and, even if a study's risk of bias is high, that does not mean the findings are invalid

Bias was also assessed via funnel plots created through Review Manager (RevMan) version 5.3 (Cochrane Collaboration, 2012). Whilst funnel plots can effectively identify reporting bias (Higgins & Green, 2011), visual

analysis is vulnerable to individual opinion and is often misinterpreted (Terrin, Schmid, & Lau, 2005). An alternative is the *fail-safe N* (Rosenthal, 1979), however, due to unreliable variations in implementation, guidelines advise against this (Higgins & Green, 2011).

The results are expected to be heterogeneous due to natural clinical and methodological diversity found in psychological intervention studies (Higgins, Thompson, Deeks, & Altman, 2003). Therefore, guidelines advise use of standard mean difference (*SMD*) calculations within a random effects model (Higgins & Green, 2011). This produces more conservative pooled effect size estimates, less susceptible to the impact of heterogeneity.

Therefore, for each meta-analysis, the post-intervention means (*m*), standard deviations (*sd*), and participant numbers (*n*) of intervention and control groups were entered in RevMan. The overall effect size estimate was calculated using Hedge's *G* which is a more precise variation of Cohen's *D* due to correction of biases in small effect sizes (Hedges & Olkin, 1985). 95% Confidence Intervals (CI) were calculated in order to improve certainty when stating significance (Sapp, 2004). The pooled effect size was calculated as follows (Figure 2):

$$SMD_i = \frac{m_{1i} - m_{2i}}{S_i} \times \left( 1 - \frac{3}{4N_i - 9} \right)$$

$$S_i = \sqrt{\frac{(n_{1i} - 1)sd_{1i}^2 + (n_{2i} - 1)sd_{2i}^2}{N_i - 2}}$$

Figure 2. Formula for Standard Mean Difference

The magnitude of Hedge's *G* can be defined as small (0.2), medium (0.5), and large (0.8) following Cohen's (1988) convention as cited in Higgins & Green (2011). Some argue these definitions are overgenerous and that *g*=0.41 needs to be reached for "practical significance" (Ferguson, 2009), because

significant results do not necessarily mean an individual has experienced a level of change that is 'significant' to them. However, rigid adherence to such criterion may be inappropriate as it still does not guarantee that change is meaningful.

Forest plots were produced to illustrate the effect sizes, and heterogeneity of results. The heterogeneity was quantified ( $I^2$ ) on RevMan as follows (Figure 3)<sup>4</sup>:

$$I^2 = \left( \frac{Q - df}{Q} \right) \times 100\%$$

*Figure 3. Formula for Heterogeneity*

The  $I^2$  value can be interpreted as insignificant (<40%), moderate (30-60%), substantial (50-90%), or considerable (>75%). However, the size, direction, and significance of the results also impact such judgments (Higgins & Green, 2011). Therefore, a level of individual interpretation has to be used. Further sensitivity analyses were then conducted in order to observe the impact of removing potentially 'heterogeneous' studies from meta-analysis. This tested whether certain assumptions of homogeneity (Blundel, 2014) were influencing the results.

Therefore, analyses were conducted looking at the removal of studies that (1) did not have CIs overlapping with the pooled effect size, (2) had active controls, (3) had high risk of bias, (4) did not use ITT analysis, (5) had intervention durations falling  $\pm 2$ sds from average duration length, or (6) fell as an outlier on funnel plots. Sub-group analyses were also conducted investigating the pooled effect sizes of (1) SA and PSH studies, and (2) BB and CB studies.

---

<sup>4</sup> Q=chi-squared statistic; df=degrees of freedom

## **Results**

### **Study Characteristics**

Study characteristics are summarized in Table 5. For ease of reading, studies will be referred to by the first set of authors indicated in bold. Whilst all relevant characteristics have been displayed, Bricker et al (2013) had a depression screen that was excluded due to unsuitable psychometric properties.

Table 5

*Characteristics of Studies Selected for Review*

| Authors  | Participants   | Intervention                           | Comparison<br>( <i>n</i> =number<br>randomized)  | Support      | Duration  | Depression/<br>Anxiety<br>Measure(s) | Psychological<br>Flexibility<br>Measure |
|--|--|--|--|--------------|---|--------------------------------------|---|
| <b>Bricker,<br/>Wyszynski,<br/>Comstock, &amp;<br/>Heffner (2013)<br/>and Jones et<br/>al (2015)</b> | Adults<br>smoking<br>five or more<br>cigarettes<br>daily | (CB)<br>Website:<br><i>webquit.org</i> | (1) Experimental<br>website<br><i>webquit.org</i><br>( <i>n</i> =111)<br><br>(2) Government<br>website<br><i>smokefree.gov</i><br>( <i>n</i> =111) | (SA)<br>None | Eight<br>modules<br>self-paced<br>over three<br>months<br><br>Three<br>month<br>follow up | N/A                                  | AIS-27:<br>Psychological<br>Flexibility |

| Authors  | Participants   | Intervention   | Comparison<br>( <i>n</i> =number<br>randomized)  | Support      | Duration   | Depression/<br>Anxiety<br>Measure(s) | Psychological<br>Flexibility<br>Measure |
|--|--|--|--|--------------|--|--------------------------------------|---|
| <b>Bricker et al<br/>(2014)</b> and<br>Heffner,<br>Villardaga,<br>Mercer,<br>Kientz, &<br>Bricker (2015) | Adults<br>smoking<br>five or more<br>cigarettes<br>daily | (CB)<br>Smartphone<br>application:<br><i>SmartQuit</i> | (1) ACT<br>application<br><i>SmartQuit</i><br>( <i>n</i> =98)<br><br>(2) Cancer<br>Institute<br>application<br><i>QuitGuide</i><br>( <i>n</i> =98) | (SA)<br>None | Self-paced<br>over two<br>months<br><br>No follow up | N/A                                  | AIS-9:<br>Psychological<br>Flexibility  |

| Authors                         | Participants                | Intervention                               | Comparison<br>( <i>n</i> =number<br>randomized)  | Support   | Duration  | Depression/<br>Anxiety<br>Measure(s) | Psychological<br>Flexibility<br>Measure |
|---------------------------------|-----------------------------|--|--|---|---|--------------------------------------|---|
| <b>Buhrman et al<br/>(2013)</b> | Adults with<br>chronic pain | (CB)<br>Website with<br>audio<br>exercises | (1) Experimental<br>Intervention<br>( <i>n</i> =38)<br><br>(2) Waiting List<br>( <i>n</i> =38) | (PSH)<br>Homework<br>feedback<br>weekly via<br>email. Two<br><30 min<br>phone<br>calls. | Seven<br>modules<br>over seven<br>weeks<br><br>Six month<br>follow up | HADS:<br>Anxiety and<br>Depression   | CPAQ:<br>Psychological<br>Flexibility   |

| Authors  | Participants                                      | Intervention  | Comparison<br>( <i>n</i> =number<br>randomized)   | Support                            | Duration   | Depression/<br>Anxiety<br>Measure(s)           | Psychological<br>Flexibility<br>Measure                   |
|--|---|---|---|------------------------------------|--|--|---|
| <b>Fledderus,<br/>Bohlmeijer,<br/>Pieterse, &amp;<br/>Schreurs<br/>(2012),</b><br>Fledderus,<br>Bohlmeijer,<br>Fox, Schreurs<br>& Spinhoven<br>(2013) and<br>Bohlmeijer,<br>Lamers, &<br>Fledderus<br>(2015) | Adults with<br>mild to<br>moderate<br>depression. | (BB)<br>Book: <i>Voilet<br/>Leven (Living<br/>Life to the<br/>Full,</i><br>Bohlmeijer &<br>Hulsbergen,<br>2009) | (1) Minimal email<br>support<br>( <i>n</i> =125)<br>(2) Extensive<br>email support<br>( <i>n</i> =125)<br>(3) Waiting list<br>control<br>( <i>n</i> =126) | (PSH)<br>Email<br>based<br>support | Nine<br>modules<br>over nine<br>weeks<br><br>Three<br>month<br>follow up | CES-D:<br>Depression<br><br>HADS-A:<br>Anxiety | AAQ-II (10<br>items):<br><br>Psychological<br>Flexibility |



| Authors                        | Participants            | Intervention    | Comparison<br>( <i>n</i> =number<br>randomized)   | Support                            | Duration   | Depression/<br>Anxiety<br>Measure(s) | Psychological<br>Flexibility<br>Measure |
|--------------------------------|-------------------------|-----------------|---|------------------------------------|--|--------------------------------------|---|
| <b>Hesser et al<br/>(2012)</b> | Adults with<br>tinnitus | (CB)<br>Website | (1) ACT<br>intervention<br>( <i>n</i> =35)<br><br>(2) CBT<br>intervention<br>( <i>n</i> =32)<br><br>(3) Online<br>discussion<br>forum ( <i>n</i> =32) | (PSH)<br>Email<br>based<br>support | Eight<br>modules<br>therapist-<br>paced over<br>8 weeks<br><br>Eight week<br>and one<br>year follow<br>ups | HADS:<br>Anxiety and<br>Depression   | TAQ:<br>Psychological<br>Flexibility    |

| Authors                                | Participants | Intervention   | Comparison<br>( <i>n</i> =number<br>randomized)   | Support      | Duration   | Depression/<br>Anxiety<br>Measure(s)  | Psychological<br>Flexibility<br>Measure               |
|--|--------------|--|---|--------------|--|---------------------------------------|---|
| <b>Jeffcoat &amp;<br/>Hayes (2012)</b> | Teachers     | (BB)<br>Book: <i>Get<br/>out of your<br/>mind and into<br/>your life</i><br>(Hayes &<br>Smith, 2015) | (1) ACT<br>intervention<br>( <i>n</i> =121)<br><br>(2) Waiting List<br>( <i>n</i> =115) | (SA)<br>None | Eight weeks<br>to read book<br>and<br>complete<br>quizzes<br><br>Ten week<br>follow up | DASS-21:<br>Anxiety and<br>Depression | AAQ-II (10<br>items):<br>Psychological<br>flexibility |

| Authors   | Participants                | Intervention   | Comparison<br>( <i>n</i> =number<br>randomized)  | Support                             | Duration                      | Depression/<br>Anxiety<br>Measure(s)       | Psychological<br>Flexibility<br>Measure |
|---|-----------------------------|--|--|-------------------------------------|-------------------------------|--|---|
| <b>Johnston,<br/>Foster,<br/>Shennan,<br/>Starkey, &amp;<br/>Johnson<br/>(2010)</b> | Adults with<br>chronic pain | (BB)<br>Book: <i>Living<br/>Beyond your<br/>Pain</i> (Dahl &<br>Lundgren,<br>2006) along<br>with<br>workbook | (1) ACT<br>intervention<br>( <i>n</i> =12)<br><br>(2) Waiting list<br>control<br>( <i>n</i> =12) | (PSH)<br>Weekly<br>phone<br>support | Six weeks<br><br>No follow up | CMDI:<br>Depression<br><br>BAI:<br>Anxiety | CPAQ:<br>Psychological<br>Flexibility   |

| Authors  | Participants      | Intervention  | Comparison<br>( <i>n</i> =number<br>randomized)   | Support      | Duration  | Depression/<br>Anxiety<br>Measure(s)  | Psychological<br>Flexibility<br>Measure |
|--|-------------------|---|---|--------------|---|---------------------------------------|---|
| <b>Levin, Hayes,<br/>Pistorello, &amp;<br/>Seeley (2015)</b> | Adult<br>students | (CB)<br>ACT<br>multimedia<br>program<br>online with<br>two core<br>sessions and<br>interactive<br>exercises | (1) ACT<br>intervention<br>( <i>n</i> =110)<br><br>(2) Mental<br>Health<br>Education<br>multimedia<br>program<br>( <i>n</i> =118) | (SA)<br>None | Three<br>weeks<br><br>One and<br>three month<br>follow up | DASS-21:<br>Anxiety and<br>Depression | AFQ-Y:<br>Psychological<br>Flexibility  |

| Authors                             | Participants  | Intervention    | Comparison<br>( <i>n</i> =number<br>randomized)   | Support      | Duration   | Depression/<br>Anxiety<br>Measure(s) | Psychological<br>Flexibility<br>Measure                |
|-------------------------------------|---|-----------------|---|--------------|--|--------------------------------------|--|
| <b>Moffit &amp; Mohr<br/>(2015)</b> | Adults<br>screened as<br>wanting to<br>increase<br>physical<br>activity | (CB)<br>ACT DVD | (1) ACT and<br>walking<br>intervention<br>( <i>n</i> =39)<br><br>(2) Walking<br>intervention<br>( <i>n</i> =37) | (SA)<br>None | Five<br>modules to<br>watch prior<br>to walking<br>intervention<br>over 3<br>months<br><br>Four, eight,<br>and 12<br>week follow<br>up | N/A                                  | AAQ (16<br>items):<br><br>Psychological<br>Flexibility |

| Authors   | Participants                             | Intervention   | Comparison<br>( <i>n</i> =number<br>randomized)                                       | Support      | Duration  | Depression/<br>Anxiety<br>Measure(s)  | Psychological<br>Flexibility<br>Measure            |
|---|--|--|---|--------------|---|---------------------------------------|--|
| <b>Muto, Hayes,<br/>&amp; Jeffcoat<br/>(2011)</b> | Japanese<br>students<br>living<br>abroad | (BB)<br>Book: <i>Get<br/>out of your<br/>Mind and into<br/>your Life</i><br>(Hayes &<br>Smith, 2005) | (1) ACT<br>intervention<br>( <i>n</i> =35)<br><br>(2) Waiting List<br>( <i>n</i> =35) | (SA)<br>None | 8 Weeks to<br>read book<br><br>Two month<br>follow up | DASS-21:<br>Anxiety and<br>Depression | AAQ (10<br>items):<br>Psychological<br>flexibility |

| Authors   | Participants                                     | Intervention   | Comparison<br>( <i>n</i> =number<br>randomized)   | Support                             | Duration  | Depression/<br>Anxiety<br>Measure(s)           | Psychological<br>Flexibility<br>Measure                   |
|---|--|--|---|-------------------------------------|---|--|---|
| <b>Pots et al<br/>(2016a)</b> and<br>Pots,<br>Trompetter,<br>Schreurs, &<br>Bohlmeijer<br>(2016b) | Adults with<br>mild to<br>moderate<br>depression | (CB)<br>Web-based<br>version of<br>book: <i>Living<br/>Life to the<br/>Full</i><br>(Bohlmeijer &<br>Hulsbergen,<br>2009) | (1) ACT<br>intervention<br>( <i>n</i> =82)<br><br>(2) Expressive<br>Writing<br>( <i>n</i> =67)<br><br>(3) Waiting List<br>( <i>n</i> =87) | (PSH)<br>Weekly<br>email<br>support | 9 modules<br>over 12<br>weeks<br><br>Six and 12<br>month<br>follow up | CES-D:<br>Depression<br><br>HADS-A:<br>Anxiety | AAQ-II (10<br>items):<br><br>Psychological<br>Flexibility |

| Authors                         | Participants           | Intervention   | Comparison<br>( <i>n</i> =number<br>randomized)   | Support      | Duration   | Depression/<br>Anxiety<br>Measure(s)         | Psychological<br>Flexibility<br>Measure                |
|---------------------------------|------------------------|--|---|--------------|--|--|--|
| <b>Ritzert et al<br/>(2016)</b> | Adults with<br>anxiety | (BB)<br>Book:<br><i>Mindfulness<br/>and<br/>Acceptance<br/>Workbook for<br/>Anxiety</i><br>(Forsyth &<br>Eifert, 2007) | (1) ACT<br>intervention<br>( <i>n</i> =256)<br><br>(2) Waiting List<br>( <i>n</i> =247) | (SA)<br>None | 12 weeks to<br>complete<br>book<br><br>Six and nine<br>week follow<br>up | BDI-II:<br>Depression<br><br>BAI:<br>Anxiety | AAQ (16<br>items):<br><br>Psychological<br>flexibility |



| Authors  | Participants                | Intervention   | Comparison<br>( <i>n</i> =number<br>randomized)   | Support      | Duration  | Depression/<br>Anxiety<br>Measure(s) | Psychological<br>Flexibility<br>Measure |
|--|-----------------------------|--|---|--------------|---|--------------------------------------|---|
| <b>Trompetter,<br/>Bohlmeijer,<br/>Veehof, &amp;<br/>Schreurs<br/>(2015a),</b><br>Trompetter,<br>Bohlmeijer,<br>Fox, &<br>Schreurs<br>(2015b) and<br>Trompetter,<br>Bohlmeijer,<br>Lamers, &<br>Schreurs<br>(2016) | Adults with<br>chronic pain | (CB)<br>Internet<br>version of<br>book: <i>Voilet<br/>Leven (Living<br/>Life to the<br/>Full</i> ,<br>Bohlmeijer &<br>Hulsbergen,<br>2009) | (1) ACT<br>intervention<br>( <i>n</i> =82)<br><br>(2) Expressive<br>Writing<br>( <i>n</i> =79)<br><br>(3) Waiting List<br>( <i>n</i> =77) | (SA)<br>None | Nine<br>modules<br>over 12<br>weeks<br><br>Six month<br>follow up | HADS:<br>Anxiety and<br>Depression   | PIPS:<br>Psychological<br>flexibility   |

*Note.* SA: Self-Administered; PSH: Predominantly Self-Help; BB: Book Based; CB: Computer Based; Measures: AAQ (II): Acceptance and Action Questionnaire (II); AFQ-Y: Avoidance and Fusion Questionnaire for Youth; AIS-27 & AIS-9: Avoidance and Inflexibility Scale; BAI: Beck Anxiety Inventory; BDI (II): Beck Depression Inventory (II); CES-D: Center for Epidemiologic Studies Depression Scale; CMDI: Chicago Multi-scale Depression Inventory; CPAQ: Chronic Pain Acceptance Questionnaire; DASS-21: Depression, Anxiety, and Stress Scale; HADS: Hospital Anxiety and Depression Scale; PIPS: Psychological Inflexibility in Pain Scale; TAQ: Tinnitus Acceptance Questionnaire.

### **Study Designs.**

All studies were RCTs with a mixture of passive control groups ( $n=5$ ), active control groups ( $n=4$ ), or both ( $n=4$ ). Ten studies included depression and anxiety outcomes. All 13 studies included a measure of PF. Four studies investigated the mediating relationship between PF and depression and/or anxiety outcomes.

Fledderus et al. (2012) had two PSH interventions: minimal or extensive guidance. However, in a later paper (Fledderus et al, 2013) the data of both interventions were combined. Therefore, data from this later paper was extracted in order to avoid duplication of control group data in the analyses.

Jeffcoat and Hayes (2012) analyzed sub-groups depending on pre-treatment depression or anxiety scores. Therefore, for depression outcomes, both intervention and control group data was split according to pre-intervention scores (i.e. depressed/not depressed). Similar sub-groups were also made for anxiety outcomes. This accounts for why two sets of results have been extracted from the study for the analyses of these outcomes. Analysis of PF outcomes was conducted on the group as a whole.

### **Sample Sizes.**

Sample sizes ranged 24-503 with a total of 2590 participants. 1269 were allocated to intervention conditions, 1133 were allocated to control conditions, and the final 188 were allocated to conditions not under review. Discrepancies can be observed between intervention and control group sizes due to these other conditions, as well as six studies only displaying complete data.

Participants had a wide range of characteristics. Seven studies (59.9% of participants) recruited from a clinical population with either mental or physical health symptoms: depression (2 studies,  $n=612$ ), anxiety (1 study,  $n=503$ ), chronic pain (3 studies,  $n=338$ ), and tinnitus (1 study,  $n=99$ ). Six studies recruited from a non-clinical population: smokers (2 studies,  $n=418$ ), teachers (1 study,  $n=236$ ), students (2 studies,  $n=298$ ), and those wishing to exercise more

(1 study,  $n=76$ ). All participants were 18+ years with a mean age of 41.4 years; the majority was female (72.96%).

### **Intervention Characteristics.**

More studies had SA interventions ( $n=8$ ) than PSH ( $n=5$ ), and CB interventions ( $n=8$ ) were more common than BB ( $n=6$ ). Across the CB interventions were four different formats: website ( $n=4$ ), smartphone application ( $n=1$ ), DVD ( $n=1$ ), and books accessed online ( $n=2$ ). Interventions were slightly more likely to be SA when delivered via CB programs.

Intervention duration ranged from 3-12 weeks (mean=9 weeks;  $SD=2.86$ ). 11 studies included one or more follow up data collections with final follow ups ranging 1-12 month post-intervention (mean=5.8 months,  $sd=4.21$ ).

### **Intervention Attrition and Engagement.**

All studies include attrition data. An average of 78.7% of participants (range: 53.6%-97.0%) completed post-treatment outcomes. Control groups had higher completion rates (mean=83.2%, range: 53.2%-100%) than intervention groups (mean=75.4%, range: 44.1%-94.3%) regardless of whether the control was active or passive.

Participants were more likely to complete treatment when the intervention was PSH (mean=80.1%, range: 50%-94.3%) compared to SA (mean=71.9%, range: 44.1%-86.0%). There was also a slightly higher level of completion in CB interventions (mean=77.1%, range: 54.1%-94.3%) than BB interventions (mean=73.1%, range: 44.1%-88.8%).

### **Risk of Bias.**

The risk of bias was assessed systematically following Cochrane guidelines (Tables 6 & 7; Higgins & Green, 2011; BMJ, 2011). Due to the nature

of psychotherapeutic intervention, RCTs are unable to 'blind' participants and personnel to the treatment. Therefore, all studies are deemed high risk in this domain. Also, all studies have unclear risk in the 'selective reporting' domain. Therefore, both domains were excluded from the overall risk rating to allow better differentiation between studies. Six were assessed as 'high risk', therefore, sensitivity analyses were conducted to observe their effects of heterogeneity and overall effect sizes.

Table 6

*Risk of Bias Criterion*

| Risk of Bias         | Interpretation   | Criteria  | Rating |
|----------------------|--|---|--------|
| Low risk of bias     | Bias, if present, is unlikely to alter the results seriously | Low risk of bias for all key domains            | L      |
| Unclear risk of bias | A risk of bias that raises some doubt about the results      | Low or unclear risk of bias for all key domains | U      |
| High risk of bias    | Bias may alter the results seriously                         | High risk of bias for one or more key domains   | H      |

*Note.* L = Low Risk; H = High Risk; U = Unknown Risk.

Table 7

*Risk Bias of Selected Studies*

| Study                          | Criteria                   |                        |                                      |                                |                         |                      |       |   |  | Overall Rating |
|--------------------------------|----------------------------|------------------------|--------------------------------------|--------------------------------|-------------------------|----------------------|-------|---|--|----------------|
|                                | Random Sequence Generation | Allocation Concealment | Blinding of participants/ personnel* | Blinding of outcome assessment | Incomplete outcome data | Selective reporting* | Other |   |  |                |
| Bricker et al (2013)           | L                          | L                      | H                                    | L                              | H                       | U                    | L     | H |  |                |
| Bricker et al (2014)           | L                          | L                      | H                                    | L                              | H                       | U                    | L     | H |  |                |
| Buhrman et al (2013)           | L                          | L                      | H                                    | L                              | L                       | U                    | L     | L |  |                |
| Fledderus (2012)               | L                          | L                      | H                                    | L                              | L                       | U                    | L     | L |  |                |
| Hesser et al (2012)            | L                          | L                      | H                                    | L                              | H**                     | U                    | L     | H |  |                |
| Jeffcoat & Hayes (2012)        | L                          | L                      | H                                    | L                              | L                       | U                    | L     | L |  |                |
| Johnston et al (2010)          | H                          | H                      | H                                    | H                              | H                       | U                    | L     | H |  |                |
| Levin et al (2015)             | L                          | L                      | H                                    | L                              | L                       | U                    | L     | L |  |                |
| Moffit & Mohr (2015)           | L                          | U                      | H                                    | U                              | H**                     | U                    | L     | H |  |                |
| Muto, Hayes, & Jeffcoat (2011) | U                          | U                      | H                                    | H                              | H**                     | U                    | L     | H |  |                |
| Pots et al (2016)              | U                          | U                      | H                                    | L                              | L                       | U                    | L     | U |  |                |
| Ritzert et al (2016)           | L                          | L                      | H                                    | L                              | L                       | U                    | L     | L |  |                |
| Trompetter et al (2015)        | L                          | U                      | H                                    | L                              | L                       | U                    | L     | U |  |                |

*Note.* \*The risk domains of *Blinding of participants and personnel* and *Selective reporting* have been excluded from the calculation of overall risk rating, \*\* ITT analysis was conducted but reported data analysis was for completer number only. L = Low Risk; H = High Risk; U = Unknown Risk

Meta-Analysis

Funnel plots were produced to check for bias in results and any outliers (Figure 4). Whilst visual inspection of the funnel plots shows symmetry, indicative of minimal bias across the results, the Ritzert (2016) study was an outlier in all three plots. Therefore, sensitivity analyses were conducted to observe it effects on heterogeneity and overall effect size.

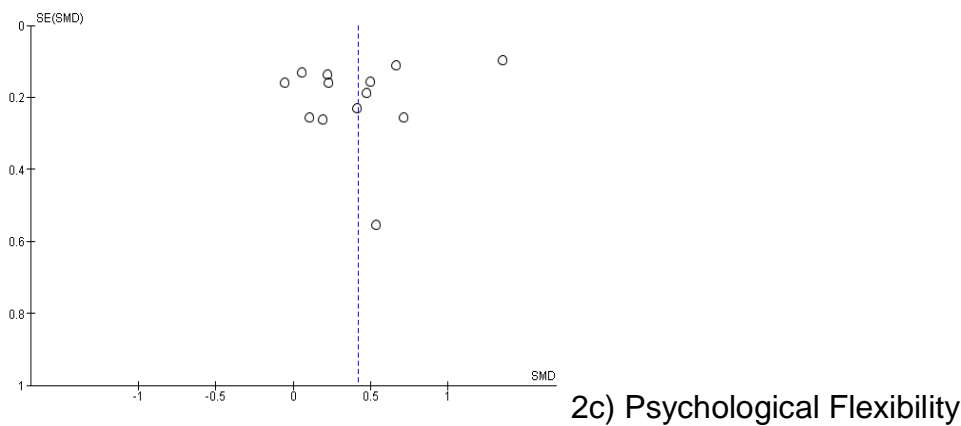
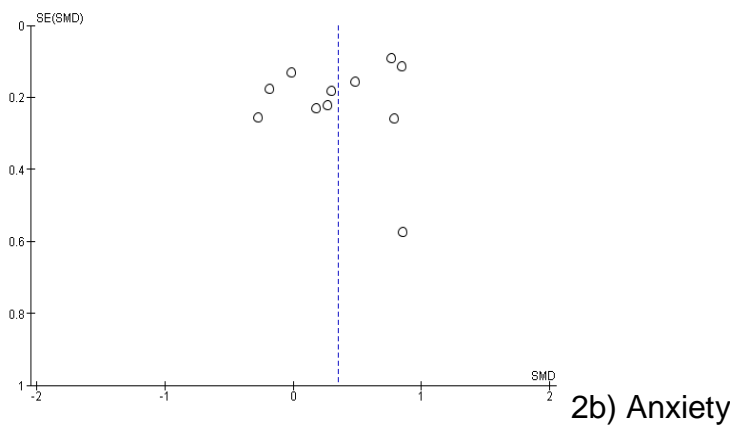
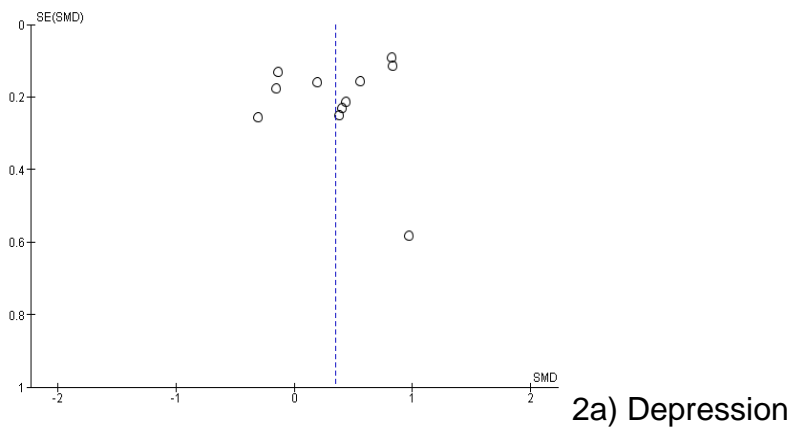


Figure 4. Funnel plots of post-intervention effect sizes by standard error

### **Depression Outcomes.**

Ten studies included measures of depression. With the splitting of Jeffcoat and Hayes' (2012) results into "depressed" and "not depressed" subgroups, 11 sets of results (1870 participants) were included in the meta-analysis (Table 8; Figure 5).



Table 8

*Depression Symptom Outcomes*

| Study                                    | Sub-group |        | Intervention Group Outcome |       |     | Control Group Outcome |      |     | Weight<br>% | Standard Mean Difference |       |      |
|--|-----------|--------|----------------------------|-------|-----|-----------------------|------|-----|-------------|--------------------------|-------|------|
|  | Support   | Format | M                          | SD    | N   | M                     | SD   | N   |             | Effect                   | LCI   | UCI  |
| Buhrman et al (2013) (HADS-D)            | PSH       | CB     | 8.85                       | 4.40  | 38  | 10.52                 | 3.77 | 38  | 8.7%        | 0.40                     | -0.05 | 0.86 |
| Fledderus et al (2012) (CES-D)           | PSH       | BB     | 13.33                      | 7.28  | 250 | 19.76                 | 8.48 | 126 | 10.7%       | 0.80                     | 0.54  | 1.05 |
| Hesser et al (2012) (HADS-D)             | PSH       | CB     | 3.48                       | 2.43  | 33  | 4.59                  | 3.29 | 32  | 8.4%        | 0.38                     | -0.11 | 0.87 |
| Jeffcoat & Hayes (2012) Dep (DASS-D)     | SA        | BB     | 11.07                      | 9.90  | 45  | 15.18                 | 8.96 | 44  | 9.0%        | 0.43                     | 0.01  | 0.85 |
| Jeffcoat & Hayes (2012) Not Dep (DASS-D) | SA        | BB     | 4.79                       | 6.50  | 64  | 3.98                  | 3.71 | 66  | 9.7%        | -0.15                    | -0.50 | 0.19 |
| Johnston et al (2010) (CMDI)             | PSH       | BB     | 89.0                       | 23.9  | 6   | 113.9                 | 24.4 | 8   | 3.8%        | 0.96                     | -0.18 | 2.10 |
| Levin et al (2015) (DASS-D)              | SA        | CB     | 8.79                       | 11.59 | 110 | 7.31                  | 9.60 | 118 | 10.4%       | -0.14                    | -0.4  | 0.12 |

| Study                                   | Sub-group |        | Intervention Group Outcome |       |     | Control Group Outcome |       |     | Weight<br>% | Standard Mean Difference |       |      |
|---|-----------|--------|----------------------------|-------|-----|-----------------------|-------|-----|-------------|--------------------------|-------|------|
|   | Support   | Format | M                          | SD    | N   | M                     | SD    | N   |             | Effect                   | LCI   | UCI  |
| Muto, Hayes, & Jeffcoat (2011) (DASS-D) | SA        | BB     | 11.33                      | 7.56  | 30  | 9.10                  | 7.00  | 31  | 8.2%        | 0.30                     | -0.81 | 0.20 |
| Pots et al (2016) (CES-D)               | PSH       | CB     | 14.68                      | 8.05  | 82  | 19.34                 | 8.55  | 87  | 10.0%       | 0.56                     | 0.25  | 0.87 |
| Ritzert et al (2016) (BDI)              | SA        | BB     | 14.18                      | 11.18 | 256 | 24.41                 | 13.69 | 247 | 11.0%       | 0.81                     | 0.64  | 0.99 |
| Trompetter et al (2015) (HADS-D)        | SA        | CB     | 5.1                        | 3.7   | 82  | 5.8                   | 3.5   | 77  | 10.0%       | 0.19                     | -0.12 | 0.51 |
| Total (95% CI)                          |           |        |                            |       | 874 |                       |       | 996 | 100%        | 0.34                     | 0.07  | 0.61 |

*Note.* Standard Mean Difference calculated as Hedge's G. PSH = Predominantly Self-Help; SA = Self-Administered; CB = Computer Based; BB = Book Based; M = Mean; SD = Standard Deviation; N = Number of participants included in analysis; LCI = Lower Confidence Interval; UCI = Upper Confidence Interval

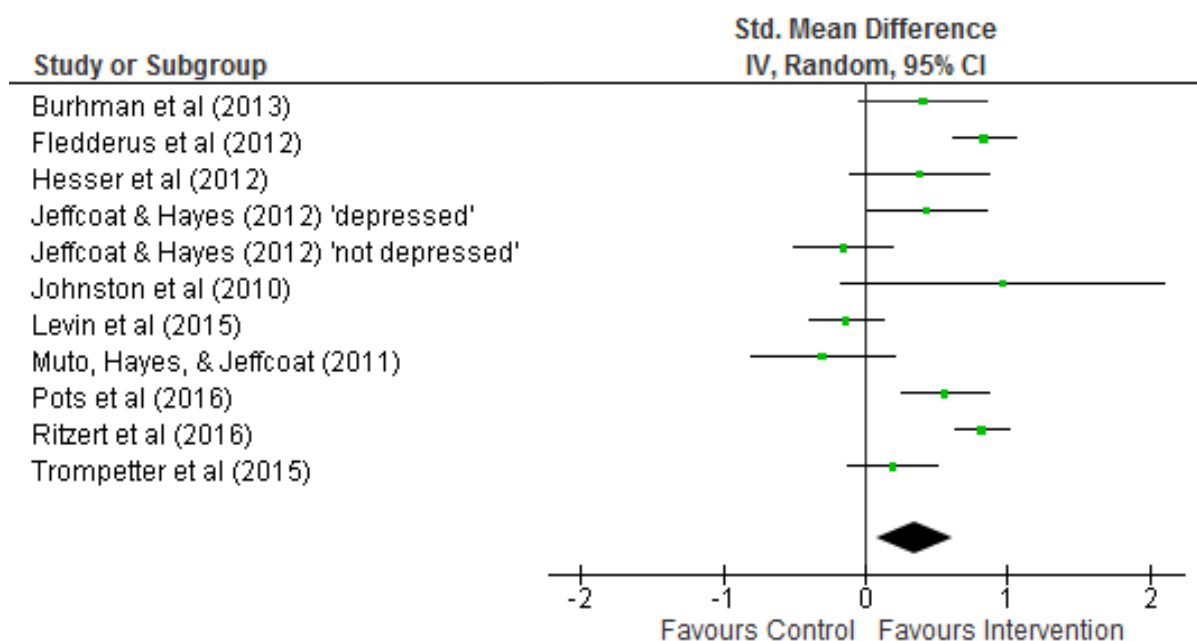


Figure 5. Depression Outcomes Forest Plot

The results show a significant small pooled effect size estimate ( $g=0.34$ ; 95% CIs [0.07, 0.61];  $Z=2.49$ ,  $p=.01$ ) favoring intervention. However, the criterion for 'practical significance' ( $>0.41$ ) was not met. As predicted, outcomes showed considerable heterogeneity ( $I^2=86\%$ ), therefore, sensitivity analyses were conducted.

The Ritzert et al (2016) study showed as an outlier on the funnel plot and did not have CIs overlapping the pooled effect size. Removing this study had minimal impact on heterogeneity ( $I^2=82\%$ ), and the pooled effect size was reduced ( $g=0.28$ ; 95% CIs [0.01, 0.56];  $Z=2.01$ ,  $p=.04$ ) but remained significant and in the same direction.

Sensitivity analyses also investigated the impact of removing studies with high risk of bias, and studies not using ITT analysis. For both analyses the same three studies were removed (Hesser et al, 2012; Muto et al, Johnston et al, 2010). Heterogeneity remained considerable ( $I^2=89\%$ ) and the pooled effect size remained significant and in the same direction ( $g=0.38$ ; 95% CIs [0.07, 0.68];  $Z=2.44$ ,  $p=.01$ ).

The pooled effect size remained significant and increased slightly to  $g=0.40$  when limiting analysis to studies with passive controls (95% CIs [0.13, 0.68];  $Z=2.86$ ,  $p=.004$ ), or studies applying interventions of comparable length (95% CIs [0.15, 0.66];  $Z=3.07$ ,  $p=.002$ ). Heterogeneity remained considerable in both cases ( $I^2=89\%$  and  $81\%$  respectively).

### ***Levels of Guidance: Self-Administered vs. Predominantly Self-Help.***

Limiting analysis to PSH studies ( $n=5$ ) reduced heterogeneity to a non-significant level ( $I^2=27\%$ ) and the pooled effect size increased to a significant medium effect size ( $g=0.63$ ; 95% CIs [0.43, 0.83];  $Z=6.05$ ,  $p<.00001$ ) that meets the threshold for practical significance. Limiting analysis to SA studies ( $n=6$ ) maintained considerable heterogeneity ( $I^2=91\%$ ) and the pooled effect size reduced to a non-significant level ( $g=0.16$ ; CIs [-0.26, 0.57];  $Z=0.74$ ,  $p=.46$ ). It is worth noting that removal of the larger 'outlier' SA study, Ritzert et al (2016), reduced the SA pooled effect size to almost zero ( $g=0.01$ ; 95% CIs [-0.23, 0.24];  $Z=0.07$ ,  $p=.95$ ). These results suggest that PSH has a greater impact on depressive symptoms than SA, however, other factors may be involved.

### ***Format of Intervention: Book Based vs. Computer Based.***

Limiting analysis to BB studies ( $n=6$ ) led to an increased pooled effect size ( $g=0.41$ ; 95% CIs [0.01, 0.81];  $Z=2.00$ ,  $p=.05$ ) at a practically significant level. However, heterogeneity remained considerable ( $I^2=88\%$ ). Limiting analysis to CB studies ( $n=5$ ) reduced heterogeneity ( $I^2=69\%$ ) and the pooled effect size dropped to a non-significant level ( $g=0.26$ ; 95% CIs [-0.02, 0.54];  $Z=1.80$ ,  $p=.07$ ). These results suggest that intervention format may potentially have a small impact, however, when the largest 'outlier' BB study, Ritzert et al (2016), is excluded the BB outcome dropped and lost significance ( $g=0.31$ ; 95% CIs [-0.22, 0.84];  $Z=1.14$ ,  $p=.25$ ). Therefore, the differences in outcomes are potentially due to other factors.

### **Anxiety Outcomes.**

10 studies included measures of anxiety. With the splitting of Jeffcoat & Hayes (2012) into “anxious” and “not anxious” subgroups, a total of 11 sets of results (1824 participants) were included in the meta-analysis (Table 9; Figure 6).

Table 9

*Anxiety Symptom Outcomes*

| Study                                    | Sub-group |        | Intervention Group Outcome |      |     | Control Group Outcome |      |     | Weight<br>% | Standard Mean Difference |       |      |
|--|-----------|--------|----------------------------|------|-----|-----------------------|------|-----|-------------|--------------------------|-------|------|
|  | Support   | Format | M                          | SD   | N   | M                     | SD   | N   |             | Effect                   | LCI   | UCI  |
| Buhrman et al (2013) (HADS-A)            | PSH       | CB     | 8.97                       | 4.33 | 38  | 9.67                  | 3.50 | 38  | 8.7%        | 0.18                     | -0.27 | 0.63 |
| Fledderus et al (2012) (HADS-A)          | PSH       | BB     | 6.12                       | 2.96 | 250 | 8.69                  | 3.19 | 126 | 10.9%       | 0.80                     | 0.54  | 1.05 |
| Hesser et al (2012) (HADS-A)             | PSH       | CB     | 4.21                       | 2.25 | 33  | 6.78                  | 3.98 | 32  | 8.1%        | 0.79                     | 0.28  | 1.29 |
| Jeffcoat & Hayes (2012) Anx (DASS-A)     | SA        | BB     | 12.21                      | 8.02 | 39  | 14.46                 | 8.82 | 42  | 8.8%        | 0.26                     | -0.17 | 0.70 |
| Jeffcoat & Hayes (2012) Not Anx (DASS-A) | SA        | BB     | 4.66                       | 5.46 | 64  | 3.75                  | 4.05 | 66  | 9.8%        | -0.19                    | -0.53 | 0.16 |
| Johnston et al (2010) (BAI-II)           | PSH       | BB     | 12.0                       | 8.7  | 6   | 20.0                  | 8.80 | 8   | 3.6%        | 0.86                     | -0.27 | 1.98 |
| Levin et al (2015) (DASS-A)              | SA        | CB     | 7.05                       | 9.34 | 110 | 6.94                  | 8.68 | 118 | 10.6%       | -0.01                    | -0.27 | 0.25 |

| Study                                   | Sub-group |        | Intervention Group Outcome |       |     | Control Group Outcome |       |     | Weight<br>% | Standard Mean Difference |       |      |
|---|-----------|--------|----------------------------|-------|-----|-----------------------|-------|-----|-------------|--------------------------|-------|------|
|   | Support   | Format | M                          | SD    | N   | M                     | SD    | N   |             | Effect                   | LCI   | UCI  |
| Muto, Hayes, & Jeffcoat (2011) (DASS-A) | SA        | BB     | 12.53                      | 8.2   | 30  | 10.45                 | 6.75  | 31  | 8.2%        | -0.27                    | -0.78 | 0.23 |
| Pots et al (2016) (HADS-A)              | PSH       | CB     | 6.15                       | 3.25  | 82  | 7.82                  | 3.62  | 87  | 10.2%       | 0.48                     | 0.18  | 0.79 |
| Ritzert et al (2016) (ASI)              | SA        | BB     | 18.22                      | 12.41 | 256 | 28.25                 | 13.91 | 247 | 11.3%       | 7.84                     | 7.32  | 8.35 |
| Trompetter et al (2015a) (HADS-A)       | SA        | CB     | 5.0                        | 3.8   | 59  | 6.1                   | 3.6   | 62  | 9.7%        | 0.30                     | -0.06 | 0.65 |
| Total (95% CI)                          |           |        |                            |       | 857 |                       |       | 967 | 100%        | 0.35                     | 0.09  | 0.60 |

*Note.* \*Fledderus et al (2012 & 2013) and Bohlmeijer et al (2015) excluded from meta-analysis due to doubling up of control group data. Standard Mean Difference calculated as Hedge's G. PSH = Predominantly Self-Help; SA = Self-Administered; CB = Computer Based; BB = Book Based; M = Mean; SD = Standard Deviation; N = Number of participants included in analysis; LCI = Lower Confidence Interval; UCI = Upper Confidence Interval

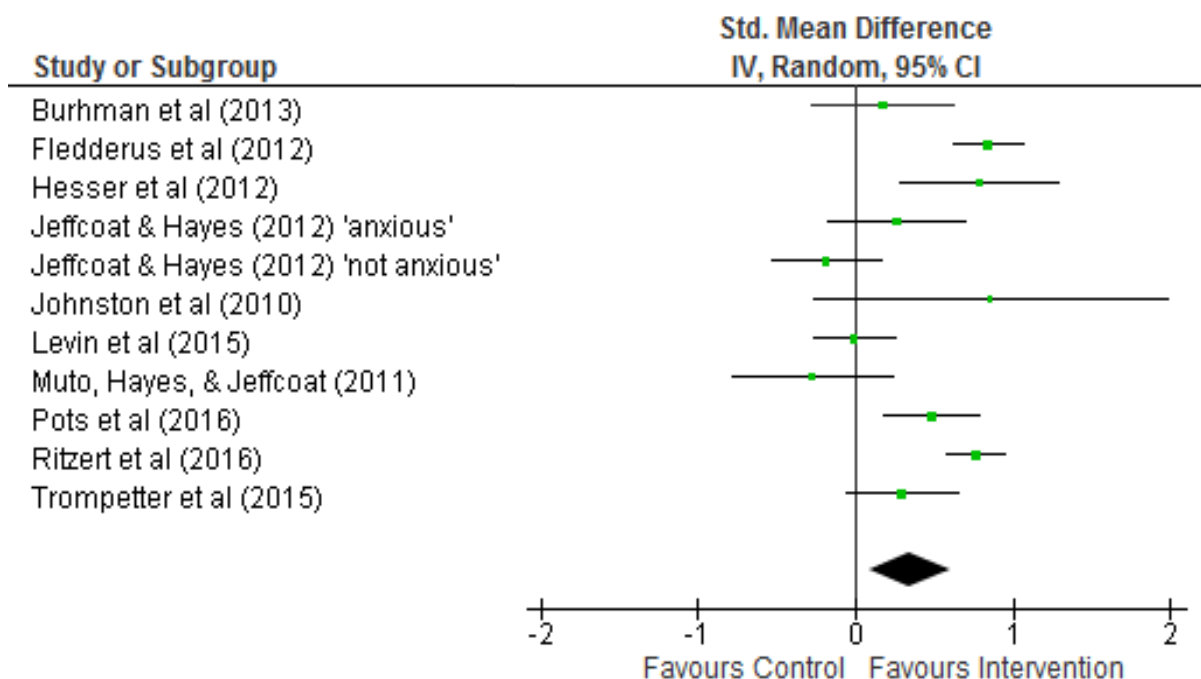


Figure 6. Anxiety Outcomes Forest Plot

The results showed a small significant pooled effect size ( $g=0.35$ ; 95% CIs [0.09, 0.60];  $Z=2.66$ ,  $p=.008$ ) favoring intervention, however, 'practical significance' was not reached. As predicted, heterogeneity was considerable ( $I^2=84\%$ ), and so further sensitivity analyses were conducted.

Removal of the study that did not have CIs overlapping with the overall effect size (Fledderus et al, 2012) did not significantly impact heterogeneity ( $I^2=81\%$ ). The effect size was slightly reduced ( $g=0.29$ ; 95% CIs [0.02, 0.55];  $Z=2.12$ ,  $p=.03$ ) but remained significant. As per the forest plots, removal of the outlier study (Ritzert, 2016) again did not impact the heterogeneity ( $I^2=81\%$ ) and the effect size was slightly reduced ( $g=0.30$ ; 95% CIs [0.02, 0.57];  $Z=2.13$ ,  $p=.03$ ) but remained significant.

Sensitivity analyses were conducted that investigated the removal of the three studies assessed as having a high risk of bias, and not using ITT analysis. The pooled effect size remained significant at a similar level ( $g=0.34$ ; 95% CIs [0.06, 0.62];  $Z=2.40$ ,  $p=.02$ ) and heterogeneity remained considerable (86%).



The pooled effect size remained significant and at a similar level when analysis was limited to studies with passive controls ( $g=0.35$ ; 95% CIs [0.08, 0.63];  $Z=2.49$ ,  $P=.01$ ), or studies with similar length interventions ( $g=0.39$ ; 95% CIs [0.13, 0.65];  $Z=2.98$ ,  $p=.003$ ). In both cases heterogeneity remained considerable ( $I^2=83\%$  and  $81\%$  respectively).

### ***Levels of Guidance: Self-Administered vs. Predominantly Self-Help.***

When limiting analysis to PSH studies ( $n=5$ ), heterogeneity dropped ( $I^2=54\%$ ) and the pooled effect size increased to a significant medium size ( $g=0.61$ ; 95% CIs [-0.34, 0.88];  $Z=4.43$ ,  $p=.00001$ ) with 'practical significance'. Limiting analysis to SA studies ( $n=6$ ) reduced the pooled effect size to a non-significant level ( $g=0.16$ ; 95% CIs [-0.22, 0.54];  $Z=0.83$ ,  $p=.41$ ) and heterogeneity remained considerable ( $I^2=88\%$ ). Removing the larger 'outlier' SA study (Ritzert, 2016) led to a greatly reduced heterogeneity ( $I^2=36\%$ ) and the pooled effect size of the SA studies dropped to a non-significant level close to zero ( $g=0.02$ ; 95% CIs [-0.18, 0.23];  $Z=0.22$ ,  $p=.82$ ). This indicates that PSH may provide better anxiety outcomes than SA. However, as this analysis has impacted on the randomization of participants, other factors may be involved.

### ***Format of Intervention: Book Based vs. Computer Based.***

Limiting analysis to BB studies ( $n=6$ ) led to a similar pooled effect size but was non-significant ( $g=0.36$ ; 95% CIs [-0.04, 0.76];  $Z=1.75$ ,  $p=.08$ ) with considerable heterogeneity ( $I^2=88\%$ ). Removal of the larger 'outlier' BB study, Ritzert (2016), maintained considerable heterogeneity ( $I^2=88$ ) and the pooled BB effect size was reduced and remained non-significant ( $g=0.26$ ; 95% CIs [-0.28, 0.81]  $Z=0.94$ ,  $p=.35$ ). Limiting analysis to the CB studies ( $n=5$ ) led to a reduced heterogeneity ( $I^2=62\%$ ) and had minimal impact on the size, direction, or significance of the pooled effect size ( $g=0.31$ ; 95% CIs: [0.05, 0.58];  $Z=2.35$ ,  $p=.02$ ). These results suggest that it is unlikely that the intervention format is a moderator of anxiety outcomes.

### **Psychological Flexibility Outcomes.**

All 13 studies (2194 participants) utilized measures of PF and were included in the meta-analysis (Table 10; Figure 7). A variety of different PF measures were used, therefore, there is variation in the interpretation of high scores. For three outcome measures, higher scores indicate *less* PF (AAQ (16 items), PIPS, & AFQ-Y) whilst for the others higher scores indicate *more* PF (AIS-27, AIS-9, AAQ (10 items), AAQ-II (10 items), CPAQ & TAQ). The entering of data into *RevMan* was adapted accordingly.

It is worth noting that Bricker et al (2013), following contact for results, found an error in initial analysis of AIS-27 scores and so corrected values are used within this analysis.

Table 10

*Psychological Flexibility Outcomes*

| Study                            | Sub-group |        | Intervention Group Outcome |       |     | Control Group Outcome |       |     | Weight<br>% | Standard Mean Difference (Hedge's D) |       |      |
|----------------------------------|-----------|--------|----------------------------|-------|-----|-----------------------|-------|-----|-------------|--------------------------------------|-------|------|
|                                  | Support   | Format | M                          | SD    | N   | M                     | SD    | N   |             | Effect                               | LCI   | UCI  |
| Bricker et al (2013) (AIS)       | SA        | CB     | 3.17                       | 0.60  | 59  | 2.92                  | 0.44  | 57  | 8.0%        | 0.47                                 | 0.10  | 0.84 |
| Bricker et al (2014) (AIS)       | SA        | CB     | 3.00                       | 0.57  | 78  | 3.03                  | 0.53  | 78  | 8.3%        | -0.05                                | -0.37 | 0.26 |
| Buhrman et al (2013) (CPAQ)      | PSH       | CB     | 50.84                      | 18.23 | 38  | 43.58                 | 16.58 | 38  | 7.4%        | 0.41                                 | -0.04 | 0.87 |
| Fledderus et al (2012) (AAQ-II)  | PSH       | BB     | 49.29                      | 9.08  | 250 | 43.00                 | 10.27 | 126 | 8.7%        | 0.66                                 | 0.44  | 0.88 |
| Hesser et al (2012) (TAQ)        | PSH       | CB     | 44.27                      | 9.69  | 33  | 36.81                 | 10.95 | 32  | 7.1%        | 0.71                                 | 0.21  | 1.22 |
| Jeffcoat & Hayes (2012) (AAQ-II) | SA        | BB     | 51.35                      | 11.29 | 103 | 48.87                 | 11.08 | 109 | 8.5%        | 0.22                                 | -0.05 | 0.49 |

| Study                                | Sub-group |        | Intervention Group Outcome |       |     | Control Group Outcome |       |     | Weight<br>% | Standard Mean Difference (Hedge's D) |       |       |
|--------------------------------------|-----------|--------|----------------------------|-------|-----|-----------------------|-------|-----|-------------|--------------------------------------|-------|-------|
|                                      | Support   | Format | M                          | SD    | N   | M                     | SD    | N   |             | Effect                               | LCI   | UCI   |
| Johnston et al (2010) (CPAQ)         | PSH       | BB     | 59.00                      | 8.2   | 6   | 52.3                  | 13.80 | 8   | 3.9%        | 0.53                                 | -0.55 | 1.62  |
| Levin et al (2015) (AFQ-Y)           | SA        | CB     | 35.37                      | 12.27 | 110 | 36.11                 | 13.51 | 118 | 8.6%        | 0.06                                 | -0.20 | 0.32  |
| Moffit & Mohr (2015) (AAQ)           | SA        | CB     | 64.55                      | 19.96 | 32  | 67.85                 | 12.87 | 27  | 7.0%        | 0.19                                 | -0.32 | 0.70  |
| Muto, Hayes, & Jeffcoat (2011) (AAQ) | SA        | BB     | 44.30                      | 6.67  | 30  | 43.48                 | 8.63  | 31  | 7.1%        | 0.10                                 | -0.40 | -0.16 |
| Pots et al (2016) (AAQ-II)           | PSH       | CB     | 47.74                      | 9.24  | 82  | 43.04                 | 9.60  | 87  | 8.3%        | 0.50                                 | 0.19  | 0.80  |
| Ritzert et al (2016) (AAQ)           | SA        | BB     | 61.33                      | 6.75  | 256 | 76.03                 | 13.88 | 247 | 8.8%        | 1.35                                 | 1.16  | 1.55  |

| Study                          | Sub-group |        | Intervention Group Outcome |       |      | Control Group Outcome |       |      | Weight<br>% | Standard Mean Difference (Hedge's D) |       |      |
|--------------------------------|-----------|--------|----------------------------|-------|------|-----------------------|-------|------|-------------|--------------------------------------|-------|------|
|                                | Support   | Format | M                          | SD    | N    | M                     | SD    | N    |             | Effect                               | LCI   | UCI  |
| Trompetter et al (2015) (PIPS) | SA        | CB     | 40.70                      | 13.80 | 82   | 43.80                 | 13.10 | 77   | 8.3%        | 0.23                                 | -0.08 | 0.54 |
| Totals                         |           |        |                            |       | 1148 |                       |       | 1046 | 100%        | 0.42                                 | 0.14  | 0.70 |

*Note.* \*Fledderus et al (2012 & 2013) and Bohlmeijer et al (2015) excluded from meta-analysis due to doubling up of control group data. Standard Mean Difference calculated as Hedge's G. PSH = Predominantly Self-Help; SA = Self-Administered; CB = Computer Based; BB = Book Based; M = Mean; SD = Standard Deviation; N = Number of participants included in analysis; LCI = Lower Confidence Interval; UCI = Upper Confidence Interval

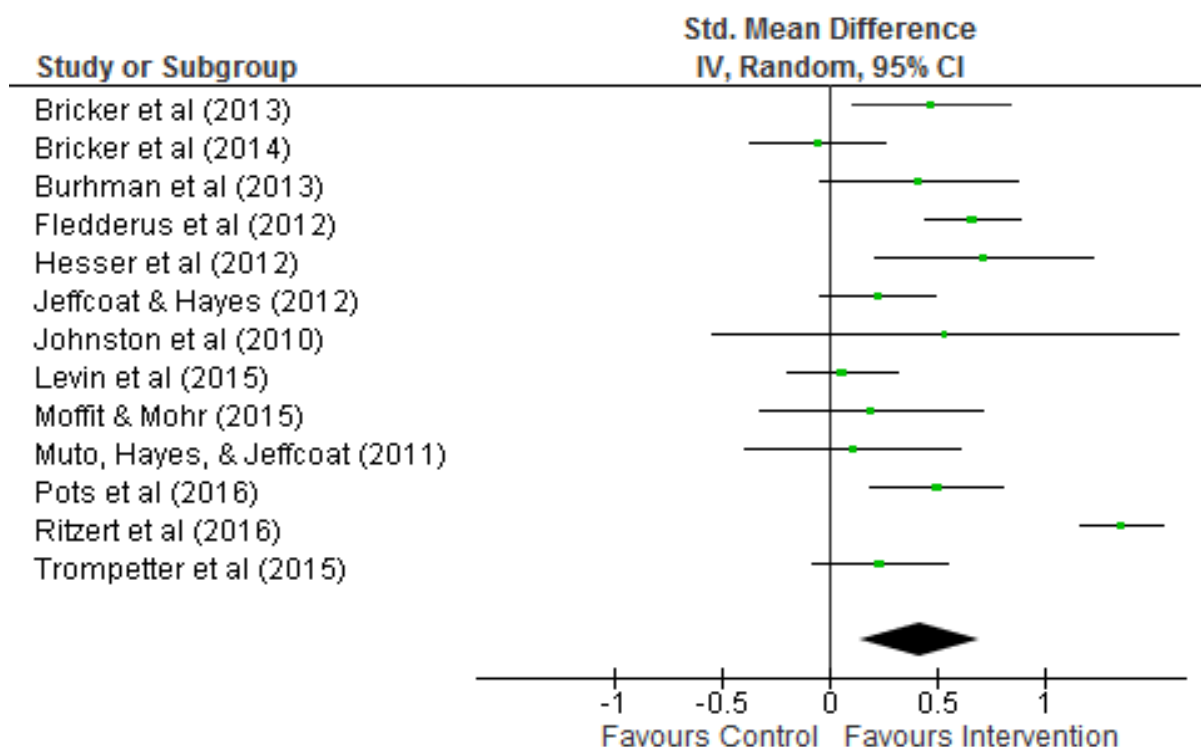


Figure 7. Psychological Flexibility Outcomes Forest Plot

The results show a significant small pooled effect size estimate ( $g=0.42$ ; 95% CIs [0.14, 0.70];  $Z=2.93$ ,  $p=.003$ ) favoring intervention that meets criteria for 'practical significance'. As predicted, heterogeneity was considerable ( $I^2=89\%$ ), therefore, further sensitivity analyses were conducted.

The Ritzert (2016) study was an outlier on the funnel plot and does not have CIs overlapping with the pooled effect size. Its removal led to a slight drop in the effect size ( $g=0.32$ ; 95% CIs [0.16, 0.48];  $Z=3.99$ ,  $p<.0001$ ), but remained significant. Heterogeneity reduced to a 'substantial' level ( $I^2=56\%$ ).

A sensitivity analysis was conducted investigating the impact of removing the three studies that were assessed as having a high risk of bias, and did not use ITT data within their analysis. This led to an increase in the pooled effect size ( $g=0.50$ ; 95% CIs [0.11, 0.89];  $Z=2.49$ ,  $p=.01$ ) but heterogeneity remained considerable ( $I^2=93\%$ ).

The pooled effect size remained significant and increased in size when analysis was limited to studies with passive controls ( $g=0.52$ ; 95% CIs [0.15, 0.88];  $Z=2.76$ ,  $p=.0006$ ), or studies with similar length interventions ( $g=0.45$ ; 95% CIs [0.16, 0.74];  $Z=3.04$ ,  $p=.002$ ). In both cases heterogeneity remained considerable ( $I^2=90\%$  and  $89\%$  respectively).

### ***Levels of Guidance: Self-Administered vs. Predominantly Self-Help.***

Limiting analysis to SA studies ( $n=8$ ) reduced the effect size to a small and non-significant level ( $g=0.33$ ; 95% CIs [-0.10, 0.76];  $Z=1.51$ ,  $p=.13$ ) with considerable heterogeneity ( $I^2=94\%$ ). Removal of the large 'outlier' SA study (Ritzert, 2016), reduced the heterogeneity to  $I^2=0\%$  and the pooled effect size, whilst significant, greatly reduced ( $g=0.16$ ; 95% CIs [0.04, 0.29];  $Z=2.51$ ,  $p=.01$ ). Limiting the analysis to PSH studies ( $n=6$ ) led to a significant medium pooled effect size ( $g=0.73$ ; 95% CIs [0.35, 1.11];  $Z=3.75$ ,  $p=.0002$ ) with maintained considerable heterogeneity ( $I^2=87\%$ ). These results indicate that PSH interventions may have greater impact than SA interventions, however, other factors may be involved.

### ***Format of Intervention: Book Based vs. Computer Based.***

Sub-group analysis was conducted looking at the pooled effect sizes of BB and CB studies. Limiting analysis to BB interventions ( $n=5$ ) increased results to a significant medium effect size ( $g=0.60$ ; 95% CIs [0.07, 1.13];  $Z=2.20$ ,  $p=.03$ ) but maintained considerable heterogeneity ( $I^2=93\%$ ). Removal of the large 'outlier' BB study, Ritzert (2016), led to the heterogeneity reducing ( $I^2=63\%$ ) and a smaller significant pooled effect size ( $g=0.38$ ; 95% CIs [0.06, 0.70];  $Z=2.36$ ,  $p=.02$ ). Limiting analysis to the CB interventions ( $n=8$ ) reduced heterogeneity to a 'substantial' level ( $I^2=48\%$ ) with a smaller but significant pooled effect size ( $g=0.28$ ; 95% CIs [0.11, 0.46];  $Z=3.16$ ,  $p=.002$ ). Whilst these results may indicate that BB interventions may be more effective at increasing PF, other factors are likely to be involved.

### Impact of ACT Processes on Anxiety and Depression Outcomes.

Ten studies included outcomes for all three measures. Four of these studies had further mediational analyses investigating the effect of PF on anxiety and/or depression symptoms. Significant mediating relationships were found with anxiety outcomes (Fledderus et al, 2013; Levin et al, 2015), depression outcomes (Fledderus et al, 2013; Levin et al, 2015; Pots et al, 2016b), and overall HADS score (Trompetter et al, 2015b).

As changes in PF are expected to directly relate to changes in depression and anxiety scores it is expected that PF effect sizes will positively correlate with anxiety and depression effect sizes. A further meta-correlation (Table 11) was, therefore, conducted across the 10 studies reporting effect sizes for both process (psychological flexibility) and distress outcomes (anxiety and depression). Spearman rank correlations showed strong, positive relationships between effect sizes for (1) psychological flexibility and anxiety ( $\rho = .90$ ,  $p < .001$ ,  $n = 10$ ) and (2) psychological flexibility and depression ( $\rho = .70$ ,  $p = .025$ ,  $n = 10$ ); indicating that larger effects for distress (outcome indices) were associated with larger effects for psychological flexibility (ACT process measures). Rank correlations were used to reduce the influence of outlier data (relatively large effect sizes observed in Ritzert et al., 2016).

Table 11

#### *Correlations of Effect Sizes of Depression, Anxiety, and Psychological Flexibility*

| Measure    | Psychological<br>Flexibility |
|------------|------------------------------|
| Depression | .70*                         |
| Anxiety    | .90***                       |

*Note.* \* $p < .05$ , \*\* $p < .01$ , \*\*\* $p < .001$



## **Discussion**

This systematic review considered the impact of ACT self-help on depression, anxiety, and PF. 13 RCT studies were identified that met criteria for inclusion within the review. The findings will be discussed alongside alternative explanations in regards to the questions posed by this review.

### **What is the Quality of Current Research into ACT Self-Help?**

Six studies were found to be at high risk of bias. Concern was also raised due to these six studies not reporting ITT data despite three of them stating they were setting out to do so. Research indicates that 'high risk' studies tend to have significantly larger effect sizes (Hartling et al, 2009), however, this is not evident within the results as removal of such studies did not significantly impact size, significance, or direction of pooled effect sizes. This, however, may just indicate that the review authors were too stringent in the application of the risk assessment.

The funnel plots were reasonably symmetrical and there was no indication of reporting bias, however, interpretation was vulnerable to individual opinion (Terrin et al, 2005). Also, only published results were included in this review, therefore, it is difficult to test Fanelli's (2012) claim that there is publication bias. Whilst the forest plots show negative effect sizes in some studies, it is worth noting that many of these studies often neglected to sufficiently describe such negative outcomes within their article's narrative. This echoes concerns raised by O'Donohue et al (2016) that there is bias in how research results are described.

The funnel plots did raise concern over one 'outlier' (Ritzert et al, 2016) that had significantly greater effect sizes. Removing the study reduced pooled effect sizes but maintained heterogeneity levels. This indicates that it may only be due to the study's large size, and reduced CI, that led to its position on the plots. It is also assessed as being at a low risk of bias and so it may be that, despite being an outlier, it has more representative effect sizes.

Despite the concerns raised about the methodologies and narrative representations of outcomes, the meta-analytic outcomes of this review did not appear to be impacted upon by these concerns. However, these concerns need to be taken into consideration in future practice.

### **What is the Efficacy of ACT Self-Help on Depression, Anxiety, and Psychological Flexibility?**

Meta-analysis showed significant small effect sizes favoring intervention for depression ( $g=0.34$ ; 95% CIs [0.07, 0.61];  $Z=2.49$ ,  $p=.01$ ) and anxiety ( $g=0.35$ ; 95% CIs [0.09, 0.60];  $Z=2.66$ ,  $p=.008$ ) outcomes, but 'practical significance' (Ferguson, 2009) was not achieved and so such changes may not have been meaningful to the participants involved. However, it can be argued that, as ACT does not claim to reduce symptoms but rather increase acceptance of them (Hayes et al, 1999), symptom reduction was not necessarily expected. This highlights a flaw in ACT research as emphasis is still being placed on symptomology rather than more suitable outcomes.

Meta-analysis of PF outcomes showed a significant small effect size ( $g=0.42$ ; 95% CIs [0.14, 0.70];  $Z=2.93$ ,  $p=.003$ ) favoring intervention. Whilst these results are positive, concerns have been raised that measures of PF, such as the AAQ, may instead be measuring distress or knowledge of the model (Francis, Dawson, & Golijani-Moghaddam, 2016). If this is the case, then it may be that the witnessed pooled effect size does not truly represent changes in PF.

There may also be alternative explanations for the effect sizes, such as demand characteristics of participants wanting to give the 'right' answers rather than what they truly feel, particularly as participants were unable to be 'blinded' to the interventions. However, little research exists to indicate whether demand characteristics have any impact within non-laboratory settings (McCambridge, de Bruin, & Witton, 2012).

Despite these concerns, the results indicate that ACT self-help can increase PF to a level that is meaningful to an individual, and slightly reduce depression and anxiety symptoms.

### **Does the Format of Delivery or Guidance Impact Outcomes?**

When looking at effect size alone, there is an indication that BB interventions have greater impact on outcomes. However, if intervention format was a moderator, BB studies would have lower levels of heterogeneity but this is not the case. Also, the differences between BB and CB outcomes were small and removal of the larger outlier study (Ritzert et al, 2016) significantly dropped the pooled effect sizes of the BB studies. Therefore, with the current research presented, no conclusions can be made in regards to whether the format of intervention moderates outcome, particularly as (1) randomization has been lost and (2) there is a no existing self-help literature to support these levels of interpretation.

In regards to the impact of clinician guidance, there appears to be a strong indication that PSH interventions led to improved results, even when the larger outlier study (Ritzert et al, 2016) was removed. This may be due to other factors within the sub-groups as randomization has been lost, however, it is supported by self-help literature indicating that having any form of clinician guidance can greatly improve depression and anxiety outcomes compared to no guidance at all (Cuijpers et al, 2010; Harai & Clum, 2006). ACT self-help literature also shows face-to-face therapy to be more effective than self-help (Lappalainen et al, 2014), and minimal contact (MC) therapy to have greater impact on PF and depression outcomes (Thorsell et al, 2011). However, Fledderus et al (2012) found no significant difference between minimal and extensive guidance conditions, but as both of these conditions are PSH it may be that they were not dissimilar enough to show significant difference in outcomes. At current, there is no literature comparing SA to PSH interventions within ACT self-help.

These results suggest that the format of intervention is unlikely to impact outcome, but that having some form of guidance can improve outcomes within ACT self-help.

### **Does Psychological Flexibility Moderate Depression and Anxiety Outcomes?**

Only four studies investigated the relationships between PF and depression/anxiety outcomes. This may indicate reporting bias; however, studies may have chosen to not investigate such relationships for other reasons. The four articles that did investigate all found PF to be a moderator of depression and anxiety outcomes. Also, when a meta-correlation was conducted, strong positive relationships between PF and the depression/anxiety outcomes were found. This indicates initial support for the theory that PF changes mediate changes in depression and anxiety symptoms as shown in previous research in non-self-help populations (Hayes et al, 1999; Levin, Hildebrandt, Lillis, & Hayes, 2012). However, causal inferences are difficult to make because (1) analyses are correlational, (2) limitation of only having four papers reporting on the mediating relationships, and (3) outcomes were not taken at multiple time points *during* the interventions and so the pattern of the relationship remains relatively unknown.

Therefore, it is likely that PF does mediate changes in depression and anxiety outcomes within ACT self-help but, without further in-depth analysis, care needs to be taken when drawing such conclusions.

### **Generalizability of Conclusions and Limitations of Review**

The focus of the review has remained open to a range of client populations due to restrictions in currently available research and, as ACT is transdiagnostic, this may still be suitable. However, it is this heterogeneity that has limited the conclusions that can be drawn. Whilst this heterogeneity has been accounted for through sensitivity analysis, a limitation of this review is that

it has been unable to be more focused on particular client populations or difficulties.

The review's findings can be generalized to other ACT self-help interventions, however, only those that are deemed SA or PSH. The findings can also only be applied when considering outcomes in depression, anxiety, and PF. Several studies did include further outcomes, however, for pragmatic reasons these outcomes were not the focus of the review. This is again a limitation, particularly as ACT does not set out to reduce symptomatology but rather increase acceptance to it.

The findings can also be compared against any upcoming RCTs investigating ACT self-help, however, are limited due to focus on the impact of intervention against passive controls which will potentially mean misleading results (Karlsson & Bergmark, 2015). There is also the difficulty that only published research was analyzed, therefore, conclusions may be skewed due to publication bias (Fanelli, 2012). The review is also limited in that it did not consider the cost-effectiveness of any of the interventions under review.

## **Implications for Practice and Future Research**

This review has, therefore, led to the following recommendations:

- ACT self-help (1) should not be discounted as a form of intervention, but (2) should not be used as a replacement for face-to-face therapy
- Any service offering ACT self-help should give at least a minimal level of clinician guidance
- More research is needed in this area in order to allow more focus within future meta-analytic reviews
- Further research needs to (1) investigate SA versus PSH interventions within ACT self-help RCTs, (2) investigate changes in PF during ACT self-help through a series of single-case experimental designs, (3) focus more on outcomes that ACT

purports to target rather than symptomology, and (4) follow Cochrane guidelines (Higgins & Green, 2011) in order to improve research quality

It is hoped that these recommendations will allow greater understanding of ACT self-help processes which can further reduce bias in how such interventions are being represented in public and academic domains.

## References

\* indicates papers under review.

Andersson, G., Cuijpers, P., Carlbring, P., Riper, H., & Hedman, E. (2014).

Guided internet-based vs. face-to-face cognitive behaviour therapy for psychiatric and somatic disorders: A systematic review and meta-analysis. *World Psychiatry*, 13(3), 288-295. doi: 10.1002/wps.20151

Anderson, L., Lewis, G., Araya, R., Elgie, R., Harrison, G., Proudfoot, J. ... &

Williams, C. (2005). Self-help books for depression: How can practitioners and patients make the right choice? *British Journal of General Practice*, 55(514), 387-392. Retrieved from: <http://www.ncbi.nlm.nih.gov/pubmed/15904559>

A-Tjak, J.G., Davis, M.L., Morina, N., Powers, M.B., Smits, J.A., & Emmelkamp

P.M. (2015). A meta-analysis of the efficacy of acceptance and commitment therapy for clinically relevant mental and physical health problems. *Psychotherapy and Psychosomatics*, 84(30), 30-36. doi: 10.1159/000365764

Blundel, M. (2014). Understanding and synthesizing my data. In A. Boland,

M.G. Cherry, & R. Dickson (Eds.), *Doing a Systematic Review. A student's guide* (pp. 99-123). London, UK: Sage Publications.

BMJ (2011). The Cochrane Collaboration's tool for assessing risk of bias in

randomised trials. *British Medical Journal*, 343, d5928. doi: 10.1136/bmj.d5928

BMJ (2015). Deviation from intention to treat analysis in randomised trials and treatment effect estimates: Meta-epidemiological study. *British Medical Journal*, 350, h2445. doi: 10.1136/bmj.h2445

\*Bohlmeijer, E.T., Lamers, S.M.A., & Fledderus, M. (2015). Flourishing in people with depressive symptomatology increases with acceptance and commitment therapy. Post-hoc analyses of a randomized controlled trial. *Behaviour Research and Therapy*, 65, 101-106. doi: 10.1016/j.brat.2014.12.014

Bohlmeijer, E.T., & Hulsbergen, M.L. (2009). *Voluit Leven, mindfulness. (Living life to the full, mindfulness)*. Amsterdam: Uitgeverij Boom.

\*Bricker, J.B., Mull, K., Kientz, J.A., Vilaradaga, R.M., Mercer, L.D., Akoika, K., & Heffner, J.L. (2014). Randomized, controlled pilot trial of a smartphone app for smoking cessation using Acceptance and Commitment Therapy. *Drug and Alcohol Dependence*, 143, 87-94. doi: 10.1016/j.drugalcdep.2014.07.006

\*Bricker, J.B., Wyszynski, C., Comstock, B., & Heffner, J.L. (2013). Pilot randomized controlled trial of web-based Acceptance and Commitment Therapy for smoking cessation. *Nicotine and Tobacco Research*, 15(10), 1756-1764. doi: 10.1093/ntr/ntt056

\*Buhrman, M., Skoglund, A., Husell, J., Bergström, K., Gordh, T., Hursti, T. ... Andersson, G. (2013). Guided internet-delivered Acceptance and Commitment Therapy for chronic pain patients: A randomised controlled



trial. *Behaviour Research and Therapy*, 51(6), 307-315. doi:

10.1016/j.brat.2013.02.010

Cavanagh, K., Strauss, C., Forder, L., & Jones, F. (2014). Can mindfulness and acceptance be learnt by self-help? A systematic review and meta-analysis of mindfulness and acceptance-based self-help interventions.

*Clinical Psychology Review*, 34, 118-129. doi: 10.1016/j.cpr.2014.01.001

Cochrane Collaboration (2014). *Review Manager (RevMan) [Computer program]*. Version 5.3. Copenhagen: The Nordic Cochrane Centre.

Cohen, J. (1988). *Statistical power analysis for the behavioural sciences* (2<sup>nd</sup> ed.). Hillsdale, NJ: Erlbaum.

Constantino, M.J., Coyne, A.E., McVicar, E.L., & Ametrano, R.M. (2016). The relative association between individual difference variables and general psychotherapy outcome expectation in socially anxious individuals.

*Psychotherapy Research*, 1-12. doi: 10.1080/10503307.2016.1138336

Cuijpers, P., Donker, T., van Straten, A., Li, J., & Andersson, G. (2010). Is guided self-help as effective as face-to-face psychotherapy for depression and anxiety disorders? A systematic review and meta-analysis of comparative outcome studies. *Psychological Medicine*, 40(12), 1943-1957. doi: 10.1017/ S0033291710000772

Dahl, J. & Lundgren, T. (2006). *Living beyond your pain: using acceptance and commitment therapy to ease chronic pain*. Oakland, America: New Harbinger Publications.

Department of Health (2007). *Commissioning a Brighter Future. Improving Access to Psychological Therapies*. London, UK: Crown copyright.

Retrieved from: <http://www.iapt.nhs.uk/silo/files/commissioning-a-brighter-future.pdf>

- Detsky, A. S., Naylor, C. D., O'Rourke, K., McGeer, A. J., & L'Abbé, K. A. (1992). Incorporating variations in the quality of individual randomized trials into meta-analysis. *Journal of Clinical Epidemiology*, 45, 255-265. doi: 10.1016/0895-4356(92)90085-2
- Fanelli, D. (2012). Negative results are disappearing from most disciplines and countries. *Scientometric*, 90(3), 891-904. doi: 10.1007/s11192-011-0494-7
- Ferguson, C.J. (2009). An effect size primer: A guide for clinicians and researchers. *Professional Psychology: Research and Practice*, 40(5), 532-538. doi: 10.1037/a0015808
- \*Fledderus, M., Bohlmeijer, E.T, Fox, J-P., Schreurs, K.M.G., & Spinhoven, P. (2013). The role of psychological flexibility in a self-help Acceptance and Commitment Therapy intervention for psychological distress in a randomized controlled trial. *Behaviour Research and Therapy*, 51(3), 142-151. doi: 10.1016/j.brat.2012.11
- \*Fledderus, M., Bohlmeijer, E.T., Pieterse, M.E., & Schreurs, K.M.G. (2012). Acceptance and Commitment Therapy as guided self-help for psychological distress and positive mental health: A randomized controlled trial. *Psychological Medicine*, 42(3), 485-495. doi: 10.1017/S003329711001206007

- Forsyth, J.P. & Eifert, G.H. (2007). *The mindfulness and acceptance workbook for anxiety*. Oakland, CA: New Harbinger Publications.
- Francis, A.W., Dawson, D.L., & Golijani-Moghaddam, N. (2016). The development and validation of the Comprehensive Assessment of Acceptance and Commitment Therapy Processes (CompACT). *Journal of Contextual Behavioural Science*. doi: 10.1016/j.jcbs.2016.05.003
- French, K., Golijani-Moghaddam, N. G., & Schröder, T. (2017). What is the Evidence for the Efficacy of Self-Help Acceptance and Commitment Therapy? A Systematic Review and Meta-Analysis. *Journal of Contextual Behavioral Science*, 1–15. <https://doi.org/10.1016/j.jcbs.2017.08.002>
- Harai, M. & Clum, G.A. (2006). A meta-analytic study of self-help interventions for anxiety problems. *Behaviour Therapy*, 37(2), 99-111. doi: 10.1016/j.beth.2005.05.002
- Hartling, L., Ospana, M., Liang, Y., Dryden, D.M., Hooton, N., Seida, J.K., & Klassen, T.P. (2009). Risk of bias versus quality assessment of randomised controlled trials: Cross sectional study. *British Medical Journal*, 339, b4012. doi: 10.1136/bmj.b4012
- Hayes, S.C. (1991). A relational control theory of stimulus equivalence. *Journal of the Experimental Analysis of Behaviour*, 51, 385-392. doi: 10.1016/S0005-7894(04)80013-3
- Hayes, S.C. (1993). Goals and the varieties of scientific contextualism. In S.C. Hayes, L.J. Hayes, T.R. Sarbin, and H.W. Reese (Eds.), *The varieties of scientific contextualism* (pp. 11-27). Reno, NV: Context Press.

Hayes, S.C., Strosahl, K., & Wilson, K. (1999). *Acceptance and Commitment Therapy: Understanding and treating human suffering*. New York: Guildford Press.

Hayes, S.C., Strosahl, K., & Wilson, K. (2013). *Acceptance and Commitment Therapy: An experiential approach to behaviour change*. New York: Guildford Press.

Hayes, S.C. & Smith, S. (2005). *Get out of your mind and into your life. The new Acceptance and Commitment Therapy*. Oakland, CA: New Harbinger Publications, Inc.

Hedges, L.V. & Olkin, I. (1985). *Statistical methods for meta-analysis*. New York, NY: Academic Press.

\*Heffner, J.L., Vilardaga, R., Mercer, L.D., Kientz, J.A., & Bricker, J.B. (2015). Feature-level analysis of a novel smartphone application for smoking cessation. *American Journal of Drug and Alcohol Abuse*, 41(1), 68-73. doi: 10.3109/00952990.2014.977486

\*Hesser, H., Gustafsson, T. Lundén, C., Henrikson, O., Fattahi, K., Johnsson, E. ... & Andersson, G. (2012). A randomized controlled trial of internet-delivered Cognitive Behavior Therapy and Acceptance and Commitment Therapy in the treatment of tinnitus. *Journal of Consulting and Clinical Psychology*, 80(4), 649-661. doi: 10.1037/a0027021

Higgins, J. & Green, S. (2011). *Cochrane handbook for systematic reviews of interventions*. Retrieved from: <http://handbook.cochrane.org/>

- Higgins, J.P.T., Thompson, S.G., Deeks, J.J., & Altman, D.G. (2003).  
Measuring inconsistency in meta-analyses. *British Medical Journal*,  
327,557-560. doi: 10.1136/bmj.327.7414.557
- Hofmann, S.G. & Asmundson, G.J.J. (2008). Acceptance and mindfulness-  
based therapy: New wave or old hat? *Clinical Psychology Review*, 28(1),  
1-16. doi: 10.1016/j.cpr.2007.09.003
- \*Jeffcoat, T., & Hayes, S.C. (2012). A randomized trial of ACT bibliotherapy on  
the mental health of K-12 teachers and staff. *Behaviour Research and  
Therapy*, 50(9), 571-579. doi: 10.1016/j.brat.2012.05.008
- Jiménez, F.J.R. (2012). Acceptance and Commitment Therapy versus  
traditional Cognitive Behavioural Therapy. A systematic review and  
meta-analysis of current empirical evidence. *International Journal of  
Psychology and Psychotherapy*, 12(3), 333-358. Retrieved from:  
<http://reunir.unir.net/handle/123456789/679>
- \*Johnston, M., Foster, M., Shennan, J., Starkey, N.J., & Johnson, A. (2010).  
The effectiveness of an Acceptance and Commitment Therapy self-help  
intervention for chronic pain. *Clinical Journal of Pain*, 26(5), 393-402. doi:  
10.1097/AJP.0b013e3181cf59ce
- \*Jones, H.A., Heffner, J.L., Mercer, L., Wyszynski, C.M., Vilardage, R., &  
Bricker, J.B. (2015). Web-based Acceptance and Commitment Therapy  
smoking cessation treatment for smokers with depressive symptoms.  
*Journal of Dual Diagnosis*, 11(1), 56-62. doi:  
10.1080/15504263.2014.992588

- Karlsson, P. & Bergmark, A. (2015). Compared with what? An analysis of control-group types in Cochrane and Campbell reviews of psychosocial treatment efficacy with substance use disorders. *Addiction*, 110(3), 420-428. doi: 10.1111/add.12799
- Lappalainen, P., Granlund, A., Siltanen, S., Ahonen, S., Vitikainen, M., Tolvanen, A., Lappalainen, R. (2014). ACT internet-based vs face-to-face? A randomized controlled trial of two ways to deliver Acceptance and Commitment Therapy for depressive symptoms: an 18-month follow-up. *Behaviour Research and Therapy*, 61, 43-54. doi: 10.1016/j.brat.2014.07.006
- Lappalainen, P., Kaipainen, K., Lappalainen, R., Hoffrén, H., Myllymäki, T., Kinnunen, M.L. ... Korhonen, I. (2013). Feasibility of a personal health technology-based psychological intervention for men with stress and mood problems: Randomized controlled pilot trial. *JMIR Research Protocols*, 2(1), e1. doi: 10.2196/resprot.2389
- \*Levin, M.E., Hayes, S.C., Pistorello, J., Seeley, J.R. (2016). Web-based self-help for preventing mental health problems in universities: Comparing acceptance and commitment training to mental health education. *Journal of Clinical Psychology*, 72(3), 207-225. doi: 10.1002/jclp.22254
- Levin, M.E., Hildebrandt, M.J., Lillis, J., & Hayes, S.C. (2012). The impact of treatment components suggested by the Psychological Flexibility Model: A meta-analysis of laboratory based component studies. *Behaviour Therapy*, 43(4), 741-756. doi: 10.1016/j.beth.2012.05.003

- McCambridge, J., de Bruin, M., & Witton, J. (2012). The effects of demand characteristics on research participant behaviours in non-laboratory settings: A systematic review. *PLoS One*, 7(6), e39116. doi: 10.1371/journal.pone.0039116
- Mental Health Taskforce (2016). *The five year forward view for mental health*. London, UK: NHS England.
- Mind (2010). *We need to talk. Getting the right therapy at the right time*. London, UK: Mind.
- Mind (2013). *We still need to talk. A report on access to talking therapies*. London, UK: Mind.
- \*Moffitt, R., & Mohr, P. (2015). The efficacy of a self-managed Acceptance and Commitment Therapy intervention DVD for physical activity initiation. *British Journal of Health Psychology*, 20(1), 115-129. doi: 10.1111/bjhp.12098
- \*Muto, T., Hayes, S.C., & Jeffcoat, T. (2011). The effectiveness of Acceptance and Commitment Therapy bibliotherapy for enhancing the psychological health of Japanese college students living abroad. *Behaviour Therapy*, 42(2), 323-335. doi: 10.1016/j.beth.2010.08.009
- Newman, M.G., Erickson, T., Przeworski, A., & Dzus, E. (2003). Self-help and minimal-contact therapies for anxiety disorders: Is human contact necessary for therapeutic efficacy? *Journal of Clinical Psychology*, 59(3), 251-274. doi: 10.1002/jclp.10128

Newman, M.G., Szkodny, L.E., Llera, S.J., & Przeworski, A. (2011). A review of technology-assisted self-help and minimal contact therapies for anxiety and depression: Is human contact necessary for therapeutic efficacy? *Clinical Psychology Review*, 31(1), 89-103. doi: 10.1016/j.cpr.2010.09.008

O'Donohue, W., Snipes, C., & Soto, C. (2016). A case study of overselling psychotherapy: An ACT intervention for diabetes management. *Journal of Contemporary Psychotherapy*, 46, 15-25. doi: 10.1007/s10879-015-9308-1

Öst, L.G. (2006). *TILLÄMPAD AVSLAPPNING: Manual till en beteendeterapeutisk coping-teknik*. Uppsala, Sweden: Universitetsstryckeriet.

Öst, L.G. (2014). The efficacy of Acceptance and Commitment Therapy: An updated systematic review and meta-analysis. *Behaviour Research and Therapy*, 61, 105-121, doi: 10.1016/j.brat.2014.07.018

\*Pots, W.T.M., Fledderus, M., Meulenbeek, P.A.M., ten Klooster, P.M., Schreurs, K.M.G., Bohlmeijer, E.T. (2016a). Acceptance and Commitment Therapy as a web-Based intervention for depressive symptoms: Randomised controlled trial. *The British Journal of Psychiatry*, 208(1), 69-77. doi: 10.1192/bjp.bp.114.146068

\*Pots, W.T.M., Trompetter, H.R., Schreurs, K.M.G., & Bohlmeijer, E.T. (2016b). How and for whom does web-based acceptance and commitment therapy work? Mediation and moderation analyses of web-based ACT for



depressive symptoms. *BMC Psychiatry*, 16(1), 158. doi: 10.1186/s12888-016-0841-6

\*Ritzert, T.R., Forsyth, J.P., Sheppard, S.C., Boswell, J.F., Berghoff, C.R., & Eifert, G.H. (2016). Evaluating the effectiveness of ACT for anxiety disorder in a self-help context: Outcomes from a randomized wait-list controlled trial. *Behaviour Therapy*, 47(4), 444-459. doi: 10.1016/j.beth.2016.03.001

Rosen, G.M. & Lilienfeld, S.O. (2016). On the failure of psychology to advance self-help: Acceptance and Commitment Therapy (ACT) as a case example. *Journal of Contemporary Psychotherapy*, 46(2), 71-77. doi: 10.1007/s10879-015-9319-y

Rosenthal, R. (1979). The file drawer problem and tolerance for null results. *Psychological Bulletin*, 86(3), 638-64. dx.doi.org/10.1037/0033-2909.86.3.638

Sapp, M. (2004). Confidence intervals within hypnosis research. *Sleep and Hypnosis*, 6(4), 169-176. Retrieved from: <http://www.sleepandhypnosis.org/ing/Pdf/dd8f841bdc6e4527997b72c64f89cbbc.pdf>

Terrin, N., Schmid, C.H., & Lau, J. (2005). In an empirical evaluation of the funnel plot, researchers could not visually identify publication bias. *Journal of Clinical Epidemiology*, 58(9), 894-901. doi: 10.1016/j.jclinepi.2005.01.006

- Thorsell, J., Finnes, A., Dahl, J., Lundgren, T., Gybrant, M., Gordh, T., & Buhrman, M. (2011). A comparative study of 2 manual-based self-help interventions, acceptance and commitment therapy and applied relaxation, for persons with chronic pain (published erratum in: *The Clinical Journal of Pain*, 29(5), 469. doi: 10.1097/AJP.0b013e31829261d6). *Clinical Journal of Pain*, 27(8), 716-723. doi: 10.1097/AJP.0b013e318219a933
- Treadwell, J.R., Singh, S., Talati, R, McPheeters, M.L., & Reston, J.T. (2011). A framework for “best evidence” approaches in systematic reviews. *Rockville (MD): Agency for Healthcare Research and Quality (US)*. Retrieved from: <http://www.ncbi.nlm.nih.gov/books/NBK56653/>
- \*Trompetter, H.R., Bohlmeijer, E.T., Fox, J.P., & Schreurs, K.M.G. (2015a). Psychological flexibility and catastrophizing as associated change mechanisms during online Acceptance and Commitment Therapy for chronic pain. *Behaviour Research and Therapy*, 74, 50-59. doi: 10.1016/j.brat.2015.09.001
- \*Trompetter, H.R., Bohlmeijer, E.T., Lamers, S.M.A., & Schreurs, K.M.G. (2016). Positive psychological wellbeing is required for online self-help Acceptance and Commitment Therapy for chronic pain to be effective. *Frontiers in Psychology*, 7, 353. doi: 10.3389/fpsyg.2016.00353
- \*Trompetter, H.R., Bohlmeijer, E.T., Veehof, M.M., & Schreurs, K.M.G. (2015b). Internet-based guided self-help intervention for chronic pain based on Acceptance and Commitment Therapy: A randomized controlled trial.

*Journal of Behavioral Medicine*, 38, 66-80. doi: 10.1007/s10865-014-9579-0

Zettle, R.D. (2005). The evolution of a contextual approach to therapy: From comprehensive distancing to ACT. *International Journal of Behavioural and Consultation Therapy*, 1(2), 77-89. doi: 10.1037/h0100736



## **Journal Paper**



**Guided Acceptance and Commitment Therapy (ACT) self-help for clients  
on a waiting list for psychological therapy<sup>5</sup>.**

Kate French<sup>a</sup>

Nima Golijani-Moghaddam<sup>a</sup>

Thomas Schröder<sup>b</sup>

Rebecca Blacker<sup>c</sup>

<sup>a</sup>Trent Doctorate in Clinical Psychology, College of Social Sciences, University of Lincoln, 2<sup>nd</sup> Floor, Sarah Swift Building, 8 Brayford Wharf, Lincoln, LN6 7AT, UK.

<sup>b</sup>Trent Doctorate in Clinical Psychology, Division of Psychiatry & Applied Psychology, University of Nottingham, YANG Fujia Building, B Floor Jubilee Campus, Wollaton Road, Nottingham, NG8 1BB, UK.

<sup>c</sup>Adult Clinical Psychology and Psychotherapy Service, The Archway Centre, Boston West Business Park, Sleaford Road, Boston, PE21 8EG

**Corresponding Author:** Kate French; 15591146@students.lincoln.ac.uk

**Formatted for submission to:** Journal of Contextual Behavioural Science (JCBS) <sup>6</sup>, in accordance to their Author Information Pack:

*[https://www.elsevier.com/wps/find/journaldescription.cws\\_home/727090?generatepdf=true](https://www.elsevier.com/wps/find/journaldescription.cws_home/727090?generatepdf=true)*

---

<sup>5</sup> To allow the Journal Paper to be linked to the published Systematic Literature Review, it will be published under the first author's previous name (Kate French)

<sup>6</sup> See Extended Paper 1.1. for the rationale for the chosen target journal

### **Highlights<sup>7</sup>**

- Exploration of processes behind a ten-week guided ACT self-help intervention
- High drop-out rates and qualitative feedback suggest feasibility issues
- Significant improvement in psychological flexibility, well-being and symptomatology
- Partial support for the Phase Model of Psychotherapeutic Outcome
- Moderate support for ACT's model of psychological flexibility

---

<sup>7</sup> Feature of target journal.



## **Abstract**

### **Background**

Waiting lists for clinical psychology services within the UK are long. A low-cost, transdiagnostic waiting list intervention could improve experiences and initiate processes of psychotherapeutic change. Guided Acceptance and Commitment Therapy (ACT) self-help holds promise in this regard – with evidence supporting its efficacy in other contexts – but has not yet been tested as a waiting list intervention. Moreover, research needs to explore underlying change-processes. Do outcomes (where present) follow the predictions of the Phase Model of Psychotherapeutic Outcome (PMPO), and are outcomes mediated by psychological flexibility as posited by ACT?

### **Method**

A multiple-baseline single-case experimental design was utilised to explore participant outcomes in psychological flexibility, well-being, symptomatology, and life-functioning, during a 10-week phone-guided ACT self-help intervention. Participants then engaged in a post-intervention change interview to triangulate results.

### **Results**

Three participants completed the full 10-week intervention: Two experienced improvements in psychological flexibility, well-being, and symptomatology, and trends towards improvements in life-functioning; the other participant experienced no significant changes in outcomes. Analysis of weekly outcomes partially supported the predictions of the PMPO. Links between psychological flexibility and outcomes were supported, with changes in psychological flexibility preceding or co-occurring with other outcomes. Participants attributed outcomes to both life-events and the intervention, and placed emphasis on the positive

impact of the guiding phone calls. Feedback also indicated that the intervention requires adaptation to improve accessibility prior to future implementation.

## **Discussion**

Future research should continue exploration into ACT processes, and the application of guided ACT self-help interventions in such populations.

*Keywords*<sup>8</sup>: Acceptance and Commitment Therapy, Guided Self-Help, Case Series, Phase Model of Psychotherapeutic Outcome, Waiting List.

---

<sup>8</sup> Feature of target journal.

## Introduction

### Waiting Lists

In England, one in six adults (17%) meet criteria for a common mental health disorder<sup>9</sup> (CMD; Mcmanus, Bebbington, Jenkins, & Brugha, 2016; Extended Paper 1.2.), and there is a push for mental health waiting times to be reduced to six weeks (Department of Health, 2014; The King's Fund, 2015). The introduction of a stepped-care approach (Increasing Access to Psychological Therapies<sup>10</sup>) has improved access to psychological interventions in primary care settings, however, community-based waiting lists remain high for those with severe CMDs requiring specialist intervention (Mcmanus, Bebbington, Jenkins, & Brugha, 2016; Mind, 2013; Royal College of Psychiatrists, 2014).

Such waits negatively impact individuals' "livelihoods, relationships, and general well-being" (Mind, 2010, p.8; Extended Paper 1.4.). Without timely input, individuals are at greater risk of suicide attempts and/or detention under the Mental Health Act (Rethink Mental Illness, 2014; The King's Fund, 2015). The impact is also economic, with 11.5% of UK sick days in 2016 due to mental illness (Office for National Statistics, 2017), and estimations that £1 billion could be saved per year in welfare and crisis costs if treatments were given promptly to depressed individuals in the UK (Jenkins et al., 2008). However, the supply of specialist intervention is struggling to meet demand (Extended Paper 1.5.).

---

<sup>9</sup> Mental health disorders with increased prevalence including depressive disorders, generalised anxiety disorders, panic disorder, phobias, social anxiety disorder, post-traumatic stress disorder, and obsessive-compulsive disorder (National Collaborating Centre for Mental Health, 2011)

<sup>10</sup> Service providing evidence-based psychological therapies to adults with mild-to-moderate CMDs across three levels depending on need: (1) primary care assessment, (2) watchful waiting and guided self-help, (3) medication and short-term psychotherapy (Extended Paper 1.3.).

A low-level waiting list intervention could provide an alternative way for services to reduce these negative outcomes. Within individuals treated, it could also initiate processes of psychotherapeutic change and enhance factors linked to improvements in later treatment outcomes. However, such changes need to be evidence informed prior to wider implementation (Centre for Reviews and Dissemination, 2011; The King's Fund & The Health Foundation, 2015).

## **Waiting List Interventions**

A recent systematic literature review has highlighted that research into the impact of providing a low-level intervention prior to face-to-face therapy is still small and under development (Erbe, Eichert, Riper, & Ebert, 2017). Evidence indicates that self-help interventions within waiting list populations can improve symptomatology (Kenter, Cuijpers, Beekham, & van Straten, 2016; Whitfield, Williams, Hinshelwood, Pashley, & Campsie, 2007), and can also improve outcomes in later face-to-face psychotherapy. For example, Kenter, Warmerdam, Brouwer-Dudokde Wit, Cuijpers, & van Straten (2013) found that individuals with mixed depression/anxiety presentations had significantly higher improvements in anxiety if they had engaged in self-help prior to face-to-face therapy, and 34% of the group reached clinical improvement in depression, anxiety, and stress in comparison to 9.1% of those who had only had face-to-face therapy on its own. Similarly, Kok, van Straten, Beekham, & Cuijpers (2014) found that individuals with phobias had significantly improved outcomes on measures of fear and depression when given self-help prior to face-to-face psychotherapy, in comparison to those who had opted to not engage in self-help prior to face-to-face therapy.

However, the evidence is not always clear cut, with indication that “stepped-care” (where individuals have low-level interventions prior to face-to-face therapy) produces similar outcomes to face-to-face therapy alone (Braamse et al., 2015; Gyanie, Shafran, Layard, & Clark, 2010), and Haug et al. (2015) found that individuals with panic disorder and/or social disorder have improved outcomes if given face-to-face therapy *without* prior self-help. Whilst

the evidence base is limited in size, it is encouraging that further research is currently being conducted (Reins et al., 2013; Grünzig, Baumeister, Bengel, Ebert, & Krämer, 2018; Härter et al., 2015) as it is clear that further research is needed if such approaches to waiting lists and stepped-care are going to be adopted within services.

### **Phase Model of Psychotherapeutic Outcome**

Research into the processes of psychotherapeutic change indicates that psychotherapeutic outcomes occur over several stages, with both sequential (e.g., Fenichel, 1954) and non-sequential (e.g., Prochaska & Di Clemente, 1982) models being proposed. Evolving from the Dose-Effect Model (Howard, Kopta, Krause, & Orlinsky, 1986), the Phase Model of Psychotherapeutic Outcome (PMPO; Howard, Lueger, Maling, & Martinovich, 1993; Extended Paper 1.6.) hypothesises that clients experience progressive, sequential, and causally mediated change across three domains: (1) improvement in subjective well-being (“Remoralisation”), (2) reduction of symptomatology (“Remediation”), and (3) enhancement of life-functioning (“Rehabilitation”). It has remained widely supported, with up to 65.8% of individuals showing outcomes consistent with the model (Hilsenroth, Ackerman, & Blagys, 2001; Sembill, Vocks, Kosfelder, & Schöttke, 2017; Stulz & Lutz, 2007), and any observed deviance in sequencing attributed to variance in population and setting (Callahan, Swift, & Hynan, 2006; Joyce, Ogrodniczuk, Piper, & McCallum, 2002). There is argument that the PMPO should be utilised to inform treatment pathways (Sembill et al., 2017); however, it has yet to be tested in interventions other than individual psychotherapy (e.g., group work, self-help, etc.), and there is indication that individuals with severe presentations are less likely to have PMPO consistent outcomes (Joyce et al., 2002; Stulz & Lutz, 2007).

Therefore, it is pertinent to investigate whether any proposed low-level waiting list intervention follows the PMPO. If the phases are sequential in nature then a waiting list intervention could initiate the sequence and enhance later

therapeutic outcome. The phases, and their ability to predict later outcomes, are considered further below.

### **Subjective Well-being.**

Called “Remoralisation”, the first phase of the PMPO is improvement in subjective well-being (Howard et al., 1993; Extended Paper 1.7.). This is an individual’s appraisal about the emotional, psychological, and social aspects of their life, often considered on a continuum from “languishing” to “flourishing” (Gallagher, Lopez, & Preacher, 2009; Keyes, 2002, 2005, 2013; Robitschek & Keyes, 2009). Well-being is often viewed as synonymous to quality-of-life (Frisch, 1998); however, this remains a source of debate (see Camfield & Skevington, 2008; Extended Paper 1.8.).

Improvements in well-being are linked to the initial stages of therapy where hope, empowerment, and positive future appraisal are inspired (Howard et al., 1993), with levels of well-being, hope, and future appraisal all presenting as predictors of later psychopathology and therapeutic outcome (Debats, 1996; Irving et al., 2004; Lamers, Westerhof, Bohlmeijer, Ten Klooster, & Keyes, 2011). Psychological and emotional well-being have also been shown to moderate therapeutic outcomes within self-help formats (Trompetter, Bohlmeijer, Lamers, & Schreurs, 2016), with argument for positive well-being to be better monitored within such interventions (Trompetter, Lamers, Westerhof, Fledderus, & Bohlmeijer, 2017). PMPO research has shown that improved well-being is needed prior to improvement in other outcomes (Howard et al., 1993; Stulz & Lutz, 2007), therefore, it is an important outcome for waiting list interventions to target.

### **Symptomatology.**

The second phase, “Remediation”, is considered the resolution of an individual’s symptoms (Howard et al., 1993; Extended Paper 1.9.). Symptoms of

CMD broadly cover anxiety, depression, and stress (Baxter et al., 2014), with common factor and transtheoretical theories being argued due to difficulties in differentiating each construct (Hayes, Wilson, Gifford, Follette, & et al, 1996; Osman et al., 2012). Symptom improvements are linked to the middle phase of therapy where coping skills are developed, however, prior improvements in well-being can activate an individual's existing coping skills without necessarily needing active therapeutic ingredients to do so (Howard et al., 1993; Stevens, Hynan, & Allen, 2000). Research suggests that symptom severity prior to therapy can moderate and predict outcome (Newman, Crits-christoph, Connolly Gibbons, & Erickson, 2006), and initial therapeutic alliance (Falkenström, Granström, & Holmqvist, 2014; Meier, Donmall, Barrowclough, McElduff, & Heller, 2005; Trompetter et al., 2016; Tschuschke et al., 2015) which mediates treatment outcome (Horvath, Del Re, Flückiger, & Symonds, 2011). Therefore, a low-level waiting list intervention that reduces symptoms could enhance later outcomes, and initiate improvements in life-functioning (Dunn et al., 2012; Howard et al., 1993).

### **Life-Functioning.**

Detailed as "Rehabilitation", the final phase of the PMPO observes improvement in life-functioning. Unlike well-being, which captures an individual's *appraisal* of their life, life-functioning more objectively focuses on the enhancement of former/new functional roles across various areas of life (e.g., interpersonal, social, and work; Howard et al., 1993; Extended Paper 1.10.). Improvements are linked to the final stage of therapy where longstanding maladaptive patterns of living are targeted (Howard et al., 1993). It is argued that research needs more focus on life-functioning outcomes, rather than just symptomatology, as it is more likely to be meaningful to individuals (Kopta, Howard, Lowry, & Beutler, 1994). Further to this, recovery is enhanced if improved life-functioning is achieved (Agosti & Stewart, 1998), with poor life-functioning presenting as a better predictor of relapse than attributional style, self-esteem, genetic vulnerability, social support, or number of previous

episodes (Staner et al., 1997). Therefore, a low-level intervention that improves life-functioning could reduce the negative impact of waiting lists and improve outcome durability.

Considering the above, a waiting list intervention could help an individual begin movement through the PMPO, and experience an enhancement in later therapeutic outcomes. Such an intervention would need to be applied broadly across CMDs typically seen within waiting lists. Whilst psychotherapeutic models can be adapted for different CMD presentations (e.g., Cognitive Behavioural Therapy; Hofmann, Asnaani, Vonk, Sawyer, & Fang, 2012), the transdiagnostic approach of Acceptance and Commitment Therapy (ACT) may make it well-suited to address the diversity of presentations.

### **ACT and Transdiagnostic Effects**

ACT is a third-wave psychotherapeutic approach grounded in functional contextualism (Hayes, 1993) and relational frame theory (Hayes, Barnes-holmes, & Roche, 2002; Extended Paper 1.11.), and is considered transdiagnostic (Hayes et al., 2011). ACT posits that psychological distress arises from psychological inflexibility, whereby cognitive fusion (excessive regulation of behaviour by verbal processes) and experiential avoidance (attempts to alter frequency, form, or situational sensitivity of private events<sup>11</sup>) impair an individual's ability to live a valued life (Hayes, Luoma, Bond, Masuda, & Lillis, 2006). From this perspective, CMD symptoms are normal responses that become pathological due to an individual's unwillingness to accept them and continue living to their values.

ACT aims to increase psychological flexibility, thereby reducing distress, through six core processes (Hayes et al., 2011; Table 12; Extended Paper 1.12.). Unlike predominant psychotherapeutic approaches that target discrete psychological difficulties through cognitive restructuring, ACT encourages active acceptance and observation of private events, mindfulness, and engagement in

---

<sup>11</sup> Thoughts, images, and bodily sensations.



behavioural change in line with personal values (Hayes et al., 2006). Thus, by targeting underlying psychological inflexibility, distress can be alleviated regardless of diagnostic presentation.

Table 12

*Six Core Processes of ACT*

| Core Process       | Explanation   |
|--------------------|---|
| Acceptance         | The notion of embracing both the positive and negative aspects of human experience. The opposite of experiential avoidance.                 |
| Cognitive Defusion | The notion of viewing thoughts as an experience to be observed, rather than attempting to alter their content or frequency.                 |
| Being Present      | The notion of being in contact with present experiences in a non-judgemental way, and moving away from rumination or predicting the future. |
| Self as Context    | The notion of being aware of one's experiences without attachment or investment in them.  |
| Values             | The notion of developing life values that are not based on avoidance or fusion with verbal processes.                                       |
| Committed Action   | The notion of living a life based on values rather than rules, and the commitment to behaviour change.                                      |

Evidence for ACT is growing with recent systematic reviews indicating efficacy in treating multiple disorders, including anxiety, somatoform disorders, depression, psychosis, and addictions (A-Tjak et al., 2015; Öst, 2014; Smout, Hayes, Atkins, Klausen, & Duguid, 2012). Öst's (2014) review suggested that,

whilst positive, evidence is methodologically flawed and that ACT cannot yet be considered a fully established treatment. The research has also been critiqued for focusing too much on symptomatology (A-Tjak et al., 2015). However, there is emerging evidence for its efficacy in improving well-being (Bohlmeijer, Lamers, & Fledderus, 2015; Fledderus, Bohlmeijer, Smit, & Westerhof, 2010) and life-functioning (Dewhurst, Novakova, & Reuber, 2015; Franklin, Best, Wilson, Loew, & Compton, 2011; Hayes et al., 2004), and literature suggests it is at minimum equal to other established treatments (Levin & Hayes, 2009; Powers, Zum Vörde Sive Vörding, & Emmelkamp, 2009). Such empirical limitations are characteristic of emerging psychotherapeutic approaches (Gaudiano, 2009), therefore, the approach should not be discounted.

Due to ACT theory being developed ahead of the data, concerns were raised that the model was not based on empirical evidence (Corrigan, 2001), with argument for more research focusing on underlying processes of change (A-Tjak et al., 2015). Attempts at exploring ACT processes have mostly been correlational, with psychological flexibility negatively correlated with quality-of-life and mental health outcomes (Hayes et al., 2006). Sub-components of psychological flexibility have also been explored, for example, with experiential avoidance mediating well-being (Fledderus, Bohlmeijer, & Pieterse, 2010), cognitive defusion improving coping skills (Healy et al., 2008), and single-case experimental designs (SCEDs) indicating modular components of ACT can target the core processes somewhat independently (e.g., Villatte et al., 2016). However, such evidence has not yet been empirically supported across the range of CMDs, and there is argument for more SCEDs to further investigate the processes (French, Golijani-Moghaddam, & Schröder, 2017; Hayes, 1981; Holman & Koerner, 2014; Vilardaga, 2014).

## **ACT Self-Help**

Waiting list interventions need to be low-level to be achievable within services. Self-help interventions are considered cost-effective and are evidenced to reach equal efficacy with face-to-face therapies (Andersson,

Cuijpers, Carlbring, Riper, & Hedman, 2014; Cuijpers, Donker, van Straten, Li, & Andersson, 2010; Extended Paper 1.13.). A systematic review into ACT self-help indicated small-to-medium effect sizes in improving psychological flexibility, depression, and anxiety, with greater outcomes achieved when administered alongside guided support (French et al., 2017). Randomised controlled trials (RCTs) have indicated ACT self-help's efficacy in improving well-being (Fledderus, Bohlmeijer, Pieterse, & Schreurs, 2012; Pots et al., 2016) and quality-of-life (Fledderus et al., 2012; Hesser et al., 2012; Johnston, Foster, Shennan, Starkey, & Johnson, 2010; Ritzert et al., 2016); however, outcomes relating to life-functioning have not necessarily featured within the literature.

The above research is limited due to over-reliance on RCTs, as they can struggle to uncover underlying processes occurring between pre- and post-intervention outcomes. A recent SCED indicated that the core process of valued living was beneficial in improving experiences of individuals with Chronic Fatigue Syndrome (Roche, Dawson, Golijani-Moghaddam, Abey, & Gresswell, 2017); however, there is a dearth of published case-series approaches within ACT self-help literature.

## **Research Questions**

Considering the above, this study aimed to explore the processes and outcomes of a guided ACT self-help intervention within a waiting list population, to better inform potential treatment pathways (Extended Paper 1.14.).

Therefore, the research questions were as follows:

1. Does a guided ACT self-help intervention produce outcomes evidenced to predict later therapeutic outcome?
2. Do these outcomes follow the temporal predictions of the PMPO?
3. Do ACT processes account for any observed changes in outcomes?

## Methods<sup>12</sup>

### Design

A mixed-methods single-case experimental methodology with an A-B multiple-baseline design (Barlow & Hersen, 1984) was utilised (Extended Paper 2.2). Participants completed a weekly battery of outcome measures during a baseline phase to act as a control period. A ten-week ACT guided self-help intervention was then delivered, with weekly administration of outcome measures ongoing. One-week post-intervention, outcome measures were repeated, and a semi-structured change interview conducted to triangulate conclusions (Elliott, 2010; Morse, 1991). The research protocol was approved by the first author's institutional ethics committee and UK Health Research Authority ethics and governance procedures (Appendix B; Extended Paper 2.3.).

### Recruitment

Participants were individuals on a waiting list for a "Step-4" psychotherapy service within the UK (Extended Paper 2.4.). "Step-4" is part of the National Health Service's stepped-care approach to CMDs, aimed at community-based individuals with severe presentations needing more intense psychotherapeutic intervention with a qualified psychologist.

Inclusion criteria were: minimum of four months remaining on waiting list, written and verbal English skills, ability to give informed consent, deemed suitable for self-help by a qualified psychologist, and an overall "languishing" score on the Mental Health Continuum – Short Form (MHC-SF; Keyes, 2002) falling a minimum of two standard deviations below the mean score of non-clinical populations (MHC-SF score  $\leq 1.63$ ; see Measures). Participants were

---

<sup>12</sup> Methodology informed by the epistemological position of functional contextualism (Extended Paper 2.1.)

excluded if they had previous experience of ACT, or ongoing input from another mental health provider (Extended Paper 2.5.).

Due to low uptake, recruitment was conducted over two phases. Twenty-seven suitable individuals were identified, and a random number generator used to determine order of recruitment (Extended Paper 2.6.). Eligible individuals were contacted by the service via telephone and invited to an assessment to confirm eligibility and review the information sheet (Appendix C). If consenting, individuals met with the lead researcher to provide written informed consent (Appendix D) and demographic data (Appendix E). Their GPs were informed of their participation (Appendix F).

As outcomes need to be observed across a minimum of three cases to be deemed meaningful, SCED studies typically recruit six participants to protect against attrition (Smith, 2012; Extended Paper 2.7.). Therefore, recruitment continued until six participants had commenced the intervention. Participants were not paid; however, reimbursement of travel costs was offered.

## **The Intervention**

The ACT self-help book *“Get Out of your Mind and into your Life”* (Hayes & Smith, 2005)<sup>13</sup> was adapted by ensuring language was relevant to a UK population, dividing it into a ten-week intervention, adding additional prompts consistent with the guided approach (e.g., “You may wish to discuss this during your telephone support”), and increasing spaces for written exercises (Extended Paper 2.8.). Folders were provided for participants to store all material. Table 13 details the division of chapters and which ACT processes were likely to be targeted.

Participants received chapters by post once a week, alongside a weekly 30-minute phone call from an Assistant Psychologist (AP) to guide them through the material. Phone calls adhered to semi-structured “scripts”

---

<sup>13</sup> See Appendix G for book permissions

developed for the purpose (Appendix H; Extended Paper 2.9.). Book adaptations and AP scripts were reviewed independently by two qualified ACT clinicians to check fidelity to the ACT model. Service User/Carer representatives advised on the accessibility of the intervention (Extended Paper 2.10.).

Table 13

*Ten Week Intervention and Related ACT processes*

| Week | Chapters   | Topic   | ACT Process  |
|------|------------|---|--|
| 1    | Int. & 1   | <ul style="list-style-type: none"> <li>• Introduction</li> <li>• Human suffering</li> </ul>   | Acceptance   |
| 2    | 2          | <ul style="list-style-type: none"> <li>• Why language leads to suffering</li> </ul>   | Cognitive Defusion                                     |
| 3    | 3 & 4      | <ul style="list-style-type: none"> <li>• The pull of avoidance</li> <li>• Letting Go</li> </ul>   | Acceptance   |
| 4    | 5          | <ul style="list-style-type: none"> <li>• The trouble with thoughts</li> </ul>   | Cognitive Defusion<br>Self as Context                  |
| 5    | 6 & 7      | <ul style="list-style-type: none"> <li>• Having a thought versus buying a thought</li> <li>• If I am not my thoughts, then who am I?</li> </ul> | Cognitive Defusion<br>Self as Context<br>Being Present |
| 6    | 8          | <ul style="list-style-type: none"> <li>• Mindfulness</li> </ul>   | Being present<br>Self as Context                       |
| 7    | 9          | <ul style="list-style-type: none"> <li>• What willingness is and is not</li> </ul>  | Acceptance   |
| 8    | 10         | <ul style="list-style-type: none"> <li>• Willingness: Learning how to jump</li> </ul>   | Acceptance<br>Self as Context<br>Being Present         |
| 9    | 11 & 12    | <ul style="list-style-type: none"> <li>• What are values?</li> <li>• Choosing your values</li> </ul>  | Values   |
| 10   | 13 & Conc. | <ul style="list-style-type: none"> <li>• Committing to doing it</li> <li>• The choice of vital life</li> </ul>                                  | Committed Action                                       |

*Note.* Int. = Introduction; Conc. = Conclusion

## Measures

The implemented standardised self-report measures<sup>14</sup> aimed to quantify well-being, symptomatology, life-functioning, and psychological flexibility (Appendix J; Extended Paper 2.11.). Due to the PMPO reporting well-being as the first component to change, the MHC-SF was chosen as the primary measure. To allow comparison with previous research, a second measure of psychological flexibility (Acceptance and Action Questionnaire – II; AAQ-II; Bond et al., 2011) was administered at pre-, mid-, and post-intervention time-points. For each measure, participants were asked to consider the past week<sup>15</sup>. Measures were compiled into an online battery (Qualtrics, Provo, UT, USA), for which a weekly link was emailed to participants. One participant (Ron) opted for postal administration. Table 14 details the aims and scoring systems, the criterion for determining clinical/reliable change, and the psychometric properties of each measure.

---

<sup>14</sup> See Appendix I for outcome measure permissions

<sup>15</sup> Wording of measures amended when necessary.



Table 14

*Outcome Measures*

| Outcome Measure  | Aims to Measure...                            | No. of Items and scaling   | Example Item                                  | Scoring and Direction   | CC and RCI  | Reliability (IC and TR)  | Validity  |
|--|---|--|---|---|---|--|---|
| Mental Health Continuum – Short Form (MHC-SF; Keyes, 2002) | Well-being (emotional, psychological, social) | 14 items (subscales 3, 6, and 5 items respectively)<br><br>6-point Likert scales (0-5) | “How often did you feel satisfied with life?” | Scores calculated as averages.<br><br>Higher scores indicate better well-being.<br><br>Range: 0-5 | <b>CCs</b><br><i>“languishing”</i> (Score of 0-1 on at least one emotional and six other items)<br><i>“flourishing”</i> (Score of 4-5 on at least one emotional and six other items)<br><i>“moderately mentally healthy”</i> (any other combination)<br><br><b>RCI</b><br>.60 | <b>ICs</b><br>$\alpha = .92$ (Keyes et al., 2012)<br><br><b>Three-Month TRs</b><br>$r = .68$ (Lamers et al., 2011) | <b>Convergent</b><br>Subscales correlate with related outcomes (SWLS; PANAS; RSE; NES; NCS; Social Engagement; Lamers et al., 2011)<br><br><b>Discriminant</b><br>Evidenced two-continua model. Discriminated from results of mental illness (BSI; Lamers et al., 2011) |

| Outcome Measure   | Aims to Measure...                           | No. of Items and scaling   | Example Item                             | Scoring and Direction  | CC and RCI  | Reliability (IC and TR)   | Validity   |
|---|--|--|--|--|---|---|--|
| Depression, Anxiety, and Stress Scales – 21 (DASS-21; Lovibond & Lovibond, 1996). | Symptomatology (depression, anxiety, stress) | 21 items (subscales 7 items each)<br><br>4-point Likert scales (0-3) | “I was aware of the dryness of my mouth” | Scores calculated as totals multiplied by two<br><br>Higher scores indicate greater symptom distress<br><br>Range: 0-126 | <b>CCs</b><br>Total: 34.34<br><br>Dep subscale<br>“mild”: 10<br>“moderate”: 14<br>“severe”: 21<br>“severe+”: 28<br><br>Anx subscale<br>“mild”: 8<br>“moderate”: 10<br>“severe”: 15<br>“severe+”: 20<br><br>Stress subscale<br>“mild”: 15<br>“moderate”: 19<br>“severe”: 26<br>“severe+”: 34<br><br><b>RCIs</b><br>Total: 18.99<br>Dep: 9.17<br>Anx: 11.63<br>Stress: 7.65 | <b>ICs</b><br>Total: $\alpha = .96$<br>Dep: $\alpha = .94$<br>Anx: $\alpha = .87$<br>Stress: $\alpha = .95$<br>(Davies, Caputi, Skarvelis, & Ronan, 2015)<br><br><b>Two-Week TRs</b><br>Dep: $r = .75$<br>Anx: $r = .64$<br>Stress: $r = .64$<br>(Bottesi et al., 2015) | <b>Convergent</b><br>Subscales correlate with the relevant subscales of the HADS and PDS (Henry & Crawford, 2005)<br><br><b>Discriminant</b><br>Between-construct correlations (e.g. DASS anxiety versus HADS/PDS depression) less significant than within-construct correlations (Henry & Crawford, 2005) |

| Outcome Measure  | Aims to Measure...                      | No. of Items and scaling   | Example Item                          | Scoring and Direction   | CC and RCI                                 | Reliability (IC and TR)   | Validity   |
|--|---|--|---------------------------------------|---|--|---|--|
| Social Adjustment Scale – Self Report – Modified (SAS-SR-M; Cooper, Osborn, Gath, & Feggetter, 1982) | Life-functioning (work, social, family) | 44 items (subscales 12, 9, and 23 items respectively)<br><br>5-point Likert scales (1-5) | “Have you missed any time from work?” | Scores calculated as averages<br><br>Higher scores indicate reduced functioning<br><br>Range: 1-5 | <b>CC</b><br>1.98<br><br><b>RCI</b><br>.65 | <b>IC</b><br>$\alpha = .74$<br>(Edwards, Yarvis, Mueller, Zingale, & Wagman, 1978)<br><br><b>Two-Week TR</b><br>$r = .78$<br>(Edwards et al., 1978) | <b>Convergent</b><br>Correlated with measure of health-related quality-of-life (SF-36; Gameraoff, Wickramaratne, & Weissman, 2012)<br><br><b>Discriminant</b><br>Able to distinguish between individuals with/without mental illness as indicated by the SCL-90 and GAS (Gameraoff et al., 2012) |

| Outcome Measure  | Aims to Measure...  | No. of Items and scaling  | Example Item  | Scoring and Direction   | CC and RCI  | Reliability (IC and TR)   | Validity  |
|--|---|---|---|---|---|---|---|
| Comprehensive Assessment of Acceptance and Commitment Therapy Processes (CompACT; Francis, Dawson, & Golijani-Moghaddam, 2016) | Psychological flexibility (openness to experience [OE], behavioural awareness [BA], valued action [VA]) | 23 items (subscales 10, 5, and 8 items respectively)<br>7-point Likert scales (0-6) | "Thoughts are just thoughts – they don't control what I do" | Scores calculated as totals<br><br>Higher scores indicate greater psychological flexibility<br><br>Range: 0-138 | <b>CC</b><br>Total: 81.19<br><br><b>RCI</b><br>Total: 14.95 | <b>IC</b><br>Total: $\alpha = .91$ (Francis et al., 2016)<br><br><b>Two-Week TR</b><br>Total: $r = .88$ (Bayliss, Golijani-Moghaddam, & Dawson, 2018) | <b>Convergent</b><br>Correlated with the AAQ-II (Bayliss et al., 2018)<br><br><b>Discriminant</b><br>Did not correlate with measure of social desirability (MCSD-SF; Bayliss et al., 2018)<br><br><b>Concurrent</b><br>Correlates with DASS-21 subscales (Bayliss et al., 2018) |

| Outcome Measure  | Aims to Measure...        | No. of Items and scaling                   | Example Item                         | Scoring and Direction  | CC and RCI                                    | Reliability (IC and TR)   | Validity   |
|--|---------------------------|--|--------------------------------------|--|---|---|--|
| Acceptance and Action Questionnaire – II (AAQ-II; Bond et al., 2011) | Psychological flexibility | 7 items<br><br>7-point Likert scales (1-7) | “Emotions cause problems in my life” | Scores calculated as totals<br><br>Higher scores indicate reduced psychological flexibility<br><br>Range: 7-49 | <b>CC</b><br>28.89<br><br><b>RCI</b><br>10.38 | <b>IC</b><br>$\alpha = .81$<br>(Bond et al., 2011)<br><br><b>Three-Month TR</b><br>$r = .81$<br>(Bond et al., 2011) | <b>Convergent</b><br>Correlates with greater levels of thought suppression (WBSI; Bond et al., 2011)<br><br><b>Discriminant</b><br>Did not correlate with measure of social desirability (MCSD; Bond et al., 2011)<br><br><b>Concurrent</b><br>Correlates with emotional distress and life-functioning (BAI; BDI-II; DASS-42; GHQ-12; SCL-90; GJSS; Bond et al., 2011) |

*Note.* CCs and RCIs calculated using clinical and non-clinical norms in previous literature when standardised values unavailable; CC = Clinical Cut-Off; RCI = Reliable Change Index, whereby changes in score greater than the RCI value are deemed significant; IC = Internal Consistency; TR = Test-Retest; BAI = Beck Anxiety Inventory (Beck, Epstein, Brown, & Steer, 1988); BDI-I and -II = Beck Depression Inventory -I and -II (Beck, Steer, & Brown, 1996; Beck, Ward, Mendelson, Mock, & Erbaugh, 1961); BSI = Brief Symptom Inventory (Beurs & Zitman, 2006); CIS-R = Clinical Interview Schedule – Revised (Lewis, Pelosi, Araya, & Dunn, 1992); DASS-42 = Depression, Anxiety, and Stress Scale – 42 (Lovibond & Lovibond, 1995); GAS = Global Assessment Scale (Endicott, Spitzer, Fleiss, & Cohen, 1976); GHQ-12 and -28 = General Health Questionnaire -12 and -28 (Goldberg, 1978; Goldberg & Hillier, 1979); HADS = Hospital Anxiety and Depression Scale (Zigmond & Snaith, 1983); IIP-32 = Inventory of Interpersonal Problems (Barkham, Hardy, & Startup, 1996); MCSD and -SF = Marlow-Crowne Social Desirability Scale and –Short Form (Ballard, 1992; Crowne & Marlowe, 1960); PANAS = Positive and Negative Affect Schedule (Watson, Clark, & Tellegen, 1988); PDS = Personal Disturbance Scale (Bedford & Deary, 1997); RSE = Rosenberg Self-Esteem Scale (Rosenburg, 1979); NCS = Need for Cognition Scale (Cacioppo & Petty, 1982); NES = Need to Evaluate Scale (Jarvis & Petty, 1996); SCL-90 = Symptom Checklist-90 (Derogatis, Rickels, & Rock, 1976); SWLS = Satisfaction with Life Scale (Pavot & Diener, 2009); WBSI = White Bear Suppression Inventory (Wegner & Zanakos, 1994).

## Procedure

Participants completed all measures within the pre-intervention meeting. Participants were pseudo-randomly assigned<sup>16</sup> a baseline of three, four, or five weeks, which could be extended by up to two weeks if an unstable or improving trend on the MHC-SF was observed (Extended Paper 2.12.). The four main measures (MHC-SF, DASS-21, SAS-SR-M, CompACT) were completed weekly throughout the baseline and intervention. Upon commencement of the intervention (Extended Paper 2.13.), participants began receiving chapters via post each Monday and a phone call each Thursday. Each weekend, participants completed the four main measures, with the AAQ-II included in week five. One week after intervention, participants attended a post-intervention meeting (Extended Paper 2.14.) where they completed all measures again and a semi-structured change interview was conducted (Elliott, 2010; Appendix K; Extended Paper 2.15.). Figure 8 and Table 15 illustrate these procedures.

---

<sup>16</sup> To satisfy the non-concurrent multiple-baseline design, order of assignment was adjusted to ensure no participant began the intervention at the same time.

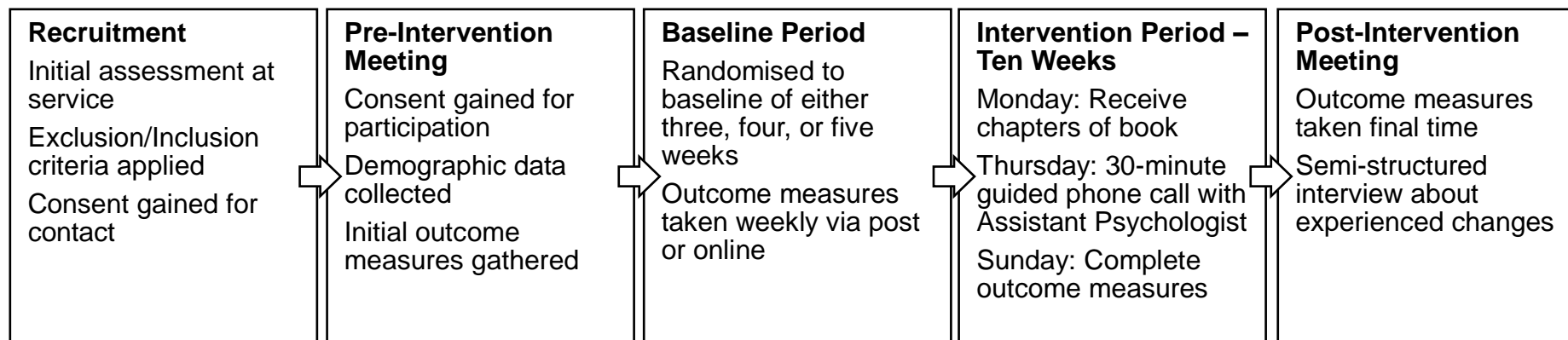


Figure 8. Participant Journey

Table 15

*Outcome Measure Timeline*

| Measure  | Pre-Intervention | Baseline |     |    | Intervention |     |    |     |     | Post- Treatment |
|----------|------------------|----------|-----|----|--------------|-----|----|-----|-----|-----------------|
|          |                  | T1       | ... | TN | T1           | ... | T5 | ... | T10 |                 |
| MHC-SF   | ✓                | ✓        | ✓   | ✓  | ✓            | ... | ✓  | ... | ✓   | ✓               |
| DASS-21  | ✓                | ✓        | ✓   | ✓  | ✓            | ... | ✓  | ... | ✓   | ✓               |
| SAS-SR-M | ✓                | ✓        | ✓   | ✓  | ✓            | ... | ✓  | ... | ✓   | ✓               |
| CompACT  | ✓                | ✓        | ✓   | ✓  | ✓            | ... | ✓  | ... | ✓   | ✓               |
| AAQ-II   | ✓                |          |     |    |              |     | ✓  |     |     | ✓               |

*Note.* ✓ indicate administration of outcome measure; Pre-Treatment = First data collection at initial meeting with researcher; Baseline: T1 = First data collection, weekly until TN = Last baseline data collection (baseline length variable across participants); Intervention: T1 = First data collection, weekly until T10 = Final data collection; Post-Treatment = Final collection at post-intervention interview; AAQ-II = Acceptance and Action Questionnaire - II; CompACT = Comprehensive Assessment of Acceptance and Commitment Therapy Processes; DASS-21 = Depression, Anxiety, and Stress Scale – 21; MHC-SF = Mental Health Continuum – Short Form; SAS-SR-M = Social Adjustment Scale – Self-Report – Modified



## Analysis<sup>17</sup>

To ensure validity and reliability of results, the APs made written notes of all phone calls, of which 10% were randomly selected (via random number generator) and independently subjected to fidelity checks by the first and second author using Plumb and Vilardaga's (2010) guidelines (Extended Paper 2.16.). Focus was placed on whether any content was antithetical to the model as befitted the nature of these brief guided calls.

Initially, pre-, mid-, and post-intervention scores were analysed for reliable and/or clinically significant change. Reliable Change Indices (RCIs) and clinical cut-offs (CCs) were calculated following Jacobson and Truax (1991) guidelines if not already reported (Table 27; Extended Paper 2.17.). For DASS-21 subscales and the MHC-SF, change was deemed clinically significant if the participant's score change was greater than the RCI *and* moved severity category (e.g., severe to moderate). For all other measures, where standardised severity categorisations do not exist, change was deemed clinically significant if it was greater than the RCI *and* moved closer to a non-clinical score distribution than a clinical score distribution (Criterion C; Jacobson & Truax, 1991). Average percentage change on each measure from participants' pre- to post-intervention scores was also calculated (Extended Paper 2.18.).

Graphical plots of participants' weekly scores were visually analysed in line with single-case series methodology (Barlow & Hersen, 1984; Extended Paper 2.19.). To reduce risks of misinterpretation (Deprospero & Cohen, 1979; Ottenbacher, 1990), a dual criterion methodology (Fisher, Kelley, & Lomas, 2003) was also utilised with baseline medians and regression trend-lines superimposed over intervention time-points. Percentages of scores falling outside *both* the median line and regression line towards direction of improvement were interpreted in line with Percentage of Non-Overlapping Data (PND; Scruggs & Mastropieri, 1998) criteria:  $\geq 90\%$  = highly effective, 70-89% =

---

<sup>17</sup> Additional analyses are detailed in Extended Paper 2.21.

moderately effective, 50-69% = minimally effective, <50% = not effective. Within the graphical plots, consistent reliable change (versus transient or aberrant) was marked where present, by highlighting the first in any series of two or more adjacent scores meeting RCI criteria. If the first score to meet reliable change was at the final time-point, this was also marked (in absence of evidence that change was subsequently reversed). Weeks where participants experienced significant life-events were indicated on the X-axis to enable transparency in potential external causality.

Analysis of change interviews took a mixed deductive-inductive approach to ensure relevance to aims whilst allowing new content to emerge, with content being analysed at the semantic level to enable more explicit interpretations - used to refute/support inferences made from quantitative analyses (Braun & Clarke, 2006; Extended Paper 2.20.). Focus was placed on (1) triangulating quantitative outcomes relating to change and its attribution, and (2) gaining feedback regarding the intervention's feasibility.

## **Results<sup>18</sup>**

### **Participants**

Seven individuals were recruited (seventh due to a pre-intervention drop-out), of which four withdrew. Reasons for withdrawal included not finding the intervention helpful ( $n = 1$ ), and life-events leading to difficulties finding time to engage ( $n = 3$ ). All participants (both completers and non-completers) had pre-intervention scores falling within the clinical range on all measures. Results focus on the three completers (Amber, Ron, and Samuel<sup>19</sup>), with reference to other participants when relevant (Extended Paper 3.1.). Participants were two

---

<sup>18</sup> Additional results relating to the CORE-OM and the CompACT subscales are detailed in Extended Paper 3.5. and 3.6. respectively, and a synthesis of results is detailed in Extended Paper 3.7. and 3.8.

<sup>19</sup> Pseudonyms

males and a female, all White British, with a mean age of 38.33 years ( $SD = 4.93$ ; range: 35-44). Reported difficulties were depression ( $n = 1$ ) and anxiety ( $n = 2$ ), however, all reported comorbidity. All three had prior experience of counselling but no formal therapy. Two participants (Ron and Samuel) were on a stable dose of anti-depressants.

Participants reported that they completed all chapters, however, two participants (Ron and Samuel) missed some phone calls (50% and 20% respectively) due to reported time-constraints. Phone calls conducted by a temporary AP ( $n = 3$ ), when the allocated AP was on annual leave, were not answered (42.86% of missed calls). Fidelity checks indicated that guided phone calls were not antithetical to the ACT model (Extended Paper 3.2.). Two participants (Amber and Samuel) each received one longer phone call (1 hour) in response to difficult life-events (week five and nine respectively). All outcome measures were completed as planned, however, one participant (Samuel) missed week eight due to a life-event. Participant details and notable events are recorded in Table 16.

Table 16

*Participants*

| Participant | No. | Age | Gender | Ethnicity     | Current circumstances  | History  | Reported Difficulty                           | Baseline   | Notable events  |
|-------------|-----|-----|--------|---------------|--|--|---|--|---|
| Amber       | 4   | 44  | Female | White British | Works in Information Technology.<br><br>Single. No children.<br>Lives with female housemate. | History of difficult relationships and bereavements.<br><br>States that gender issues and social difficulties have impacted her.<br><br>Prior experience of counselling x 3. | Depression<br><br>Also reports complex grief. | 6 weeks (extended from 5 weeks at Amber's request) | Week 5: Made redundant.<br>Longer phone call to aid distress management |

| Participant | No. | Age | Gender | Ethnicity     | Current circumstances   | History  | Reported Difficulty                                      | Baseline | Notable events  |
|-------------|-----|-----|--------|---------------|---|--|--|----------|---|
| Ron         | 5   | 36  | Male   | White British | Unreliable temporary work as a truck driver and manual labourer.<br><br>Single. No children. Lives alone. | Reports that “bad stuff” happens to him. Feels he is “weird” and doesn’t let people in. Declared insolvent last year.<br><br>Prior experience of counselling. On stable low dose of anti-depressant. | Anxiety<br><br>Also reports depression and fibromyalgia. | 5 weeks  | Week 5: Gained employment<br><br>Weeks 4, 5 <sup>a</sup> , 6 <sup>a</sup> , 7, and 9: Missed/cancelled phone calls due to job centre and work commitments |

| Participant | No. | Age | Gender | Ethnicity     | Current circumstances  | History   | Reported Difficulty   | Baseline | Notable events  |
|-------------|-----|-----|--------|---------------|--|---|---|----------|---|
| Samuel      | 7   | 35  | Male   | White British | Unemployed.<br><br>In a relationship. Three children from two previous relationships. Lives alone, with children visiting on weekends. | History of murder within the family, and experienced sexual abuse age 11.<br><br>Reports that females have often cheated on him.<br><br>On stable low dose of anti-depressant. Prior experience of counselling. | Anxiety<br><br>Also reports panic attacks, low self-esteem, untrusting of others, depression, and historic self-harm. | 4 weeks  | Final baseline week:<br>Relationship ended<br><br>Weeks 6 <sup>a</sup> and 7: Missed phone calls, reported he was busy and forgot.<br><br>Week 8: Lost contact with two of his children (measures not completed)<br><br>Week 9: Longer phone call to aid distress management. |

*Note:* <sup>a</sup> Ron and Samuel were allocated a temporary AP whilst their allocated AP was on annual leave (Ron weeks 5 and 6; Samuel week 6).

## Clinically Significant Change

Analysis of pre-, mid-, and post-intervention scores (Figure 9; Extended Paper 3.3.) on the four main measures (MHC-SF, DASS-21, SAS-SR-M, CompACT) determined that two participants (Ron and Samuel) showed reliable clinical improvement in psychological flexibility, well-being, and symptomatology. One participant (Samuel) experienced reliable improvement in life-functioning, however, no participant moved out of the clinical range. One participant (Amber) showed no reliable improvement on any outcome. Table 17 shows the average percentage improvements (Extended Paper 3.4.).

Table 17

### *Average Percentage Improvements*

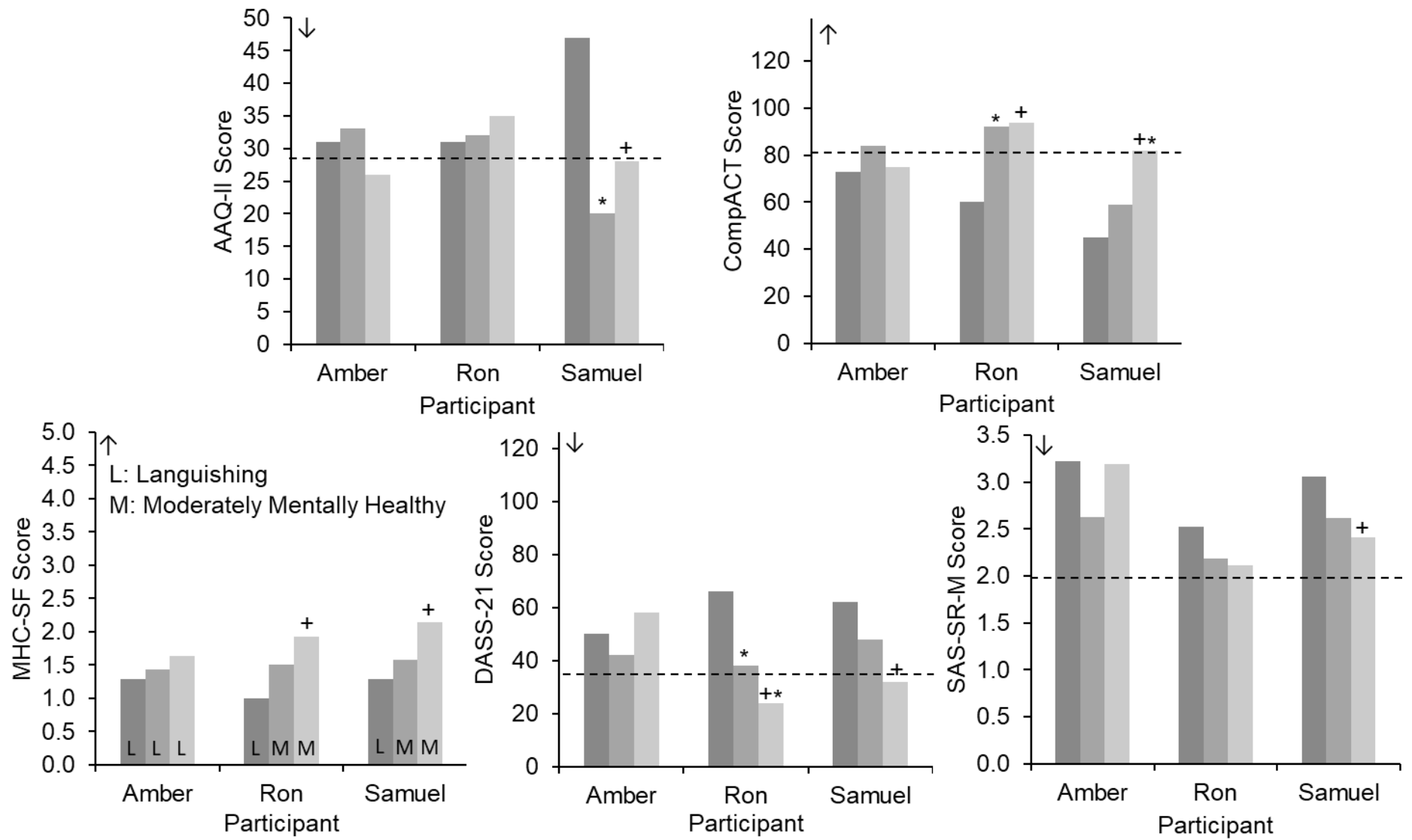
| Outcome                             | Percentage Improvement |
|-------------------------------------|------------------------|
| Psychological Flexibility (CompACT) | 47.21%                 |
| Subjective Well-being (MHC-SF)      | 131.86%                |
| Symptomatology (DASS-21)            | 32.01%                 |
| Life-Functioning (SAS-SR-M)         | 12.81%                 |

*Note.* MHC-SF = Mental Health Continuum – Short Form; DASS-21 = Depression, Anxiety, and Stress Scale – 21; SAS-SR-M = Social Adjustment Scale – Self-Report – Modified; CompACT = Comprehensive Assessment of Acceptance and Commitment Therapy Processes

DASS-21 subscales show two participants (Ron and Samuel) experienced reliable clinical improvement in depression and stress. No participant experienced reliable change in anxiety; however, one participant (Amber) showed a trend towards deterioration, whilst two participants (Ron and Samuel) showed a trend towards improvement. Average percentage improvements in depression and stress were 30.16% and 39.25% respectively, with anxiety showing a deterioration of 22.02%. The average percentage

improvement in AAQ-II scores was 14.55%, with only one participant (Samuel) showing reliable clinical improvement.





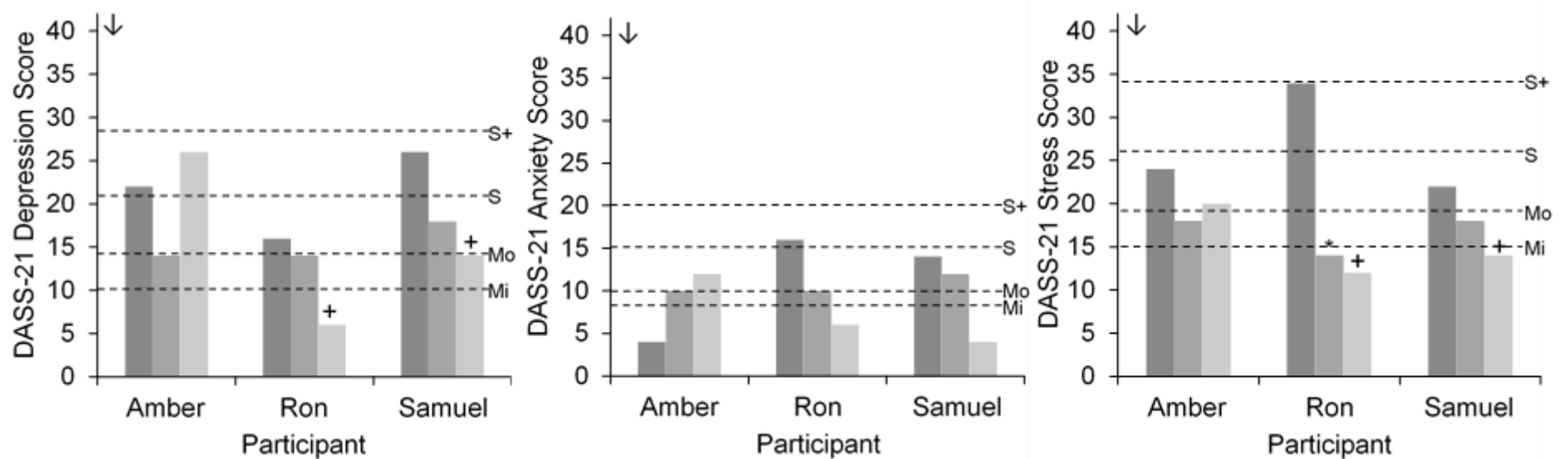


Figure 9. Outcome Measure Scores at Pre-, Mid-, and Post-Intervention Time Points; ■ Pre; ■ Mid; ■ Post; \* indicates reliable change from previous time-point; + indicates reliable change from pre-intervention time-point; - - - indicates clinical cut-offs; Mi = mild; Mo = moderate; S = severe; S+ = severe+; Arrows indicate direction of improvement; AAQ-II = Acceptance and Action Questionnaire - II; CompACT = Comprehensive Assessment of Acceptance and Commitment Therapy Processes; DASS-21 = Depression, Anxiety, and Stress Scale – 21; MHC-SF = Mental Health Continuum – Short Form; SAS-SR-M = Social Adjustment Scale – Self-Report – Modified

## **Time-Series Graphs**

Graphical plots of weekly scores (Figure 10; Barlow & Hersen, 1984) show a high level of variability, particularly across well-being and symptomatology, with life-events appearing to impact outcomes. Observations of consistent reliable change indicate that for two participants (Ron and Samuel) consistent change occurred in symptomatology before well-being. All participants experienced consistent reliable change in psychological flexibility on or before consistent reliable changes in other outcomes.

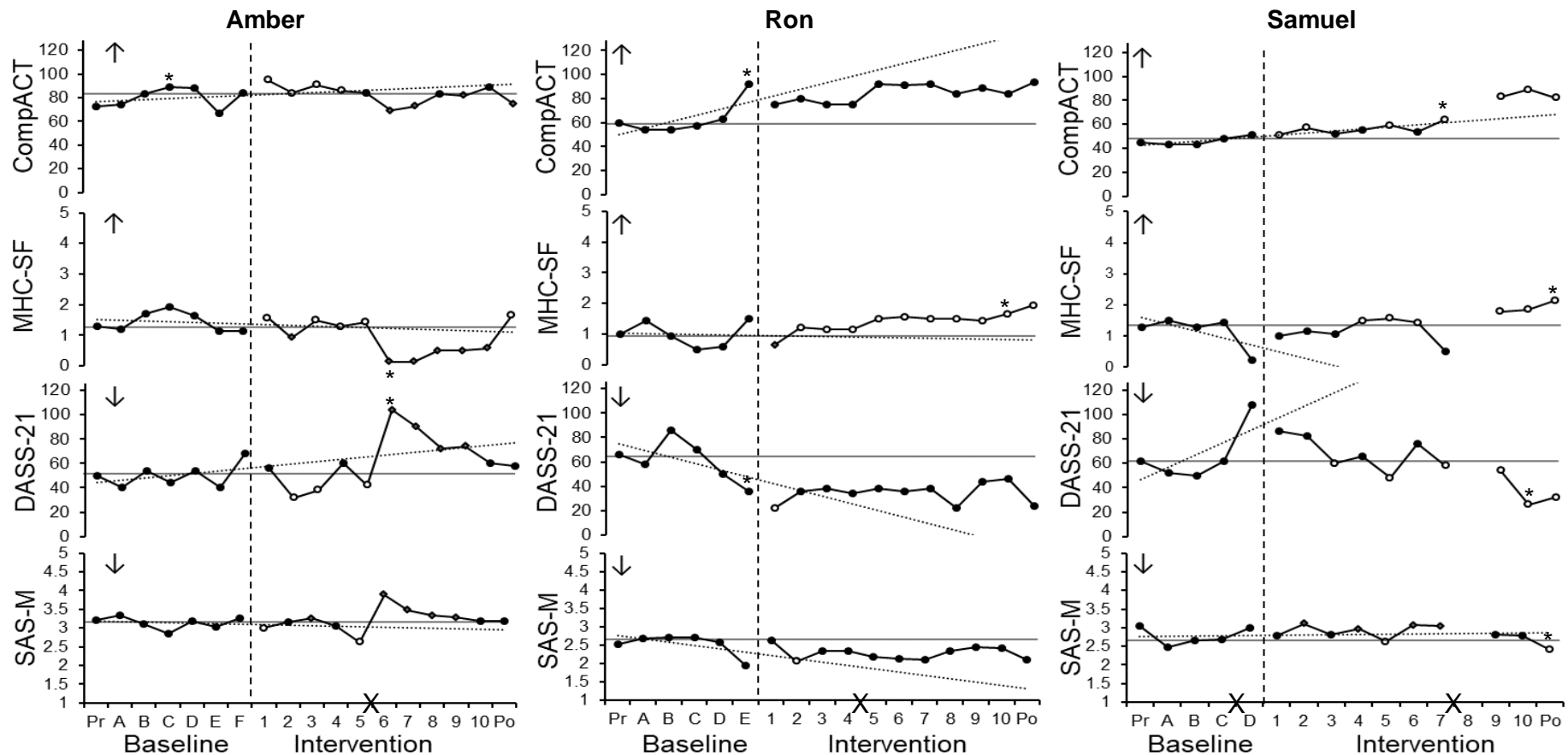
Use of dual criterion methodology (Fisher et al., 2003) and PND criteria (Scruggs & Mastropieri, 1998; Table 18) indicates the intervention was not effective for one participant (Amber). The results of the remaining two participants (Ron and Samuel) suggest the intervention is effective in improving well-being (minimal-high efficacy). However, only the results of one participant (Samuel) indicate the intervention's efficacy in improving psychological flexibility (moderate efficacy) and symptomatology (minimal efficacy). The intervention was not found to be effective in improving life-functioning. It is worth noting, particularly with Ron, that the predicted trajectories of the baseline regression lines were vulnerable to the impact of outlier scores, therefore, influencing results which otherwise could have been assessed as effective. Ron did not report any life-events leading to the change in scores in the final baseline week.

Table 18

*Time Series PND Outcomes and Interpretations*

|                       |              | Amber         | Ron              | Samuel               |
|-----------------------|--------------|---------------|------------------|----------------------|
| Number of Time Points |              | 11            | 11               | 10                   |
| CompACT               | Improved     | 3             | 0                | 7                    |
|                       | Deteriorated | 4             | 0                | 0                    |
|                       | Overall      | Not effective | Not effective    | Moderately effective |
| MHC-SF                | Improved     | 5             | 10               | 6                    |
|                       | Deteriorated | 6             | 1                | 0                    |
|                       | Overall      | Not effective | Highly effective | Minimally effective  |
| DASS-21               | Improved     | 3             | 1                | 6                    |
|                       | Deteriorated | 4             | 0                | 0                    |
|                       | Overall      | Not effective | Not effective    | Minimally effective  |
| SAS-SR-M              | Improved     | 2             | 1                | 2                    |
|                       | Deteriorated | 6             | 0                | 4                    |
|                       | Overall      | Not effective | Not effective    | Not effective        |

*Note.* CompACT = Comprehensive Assessment of Acceptance and Commitment Therapy Processes; DASS-21 = Depression, Anxiety, and Stress Scale – 21; MHC-SF = Mental Health Continuum – Short Form; SAS-SR-M = Social Adjustment Scale –Self-Report – Modified.



**Figure 10.** Weekly Scores over Baseline and Intervention; ● Total scores; — Baseline median; ---- Predicted trendline; ○ Scores meeting dual criterion indicating improvement; ◆ Scores meeting dual criterion indicating decline; X Life-event; \* First score meeting consistent reliable change criteria; Pr = Pre-intervention; A-F = Baseline time-points; 1-10 = Intervention time-points; Po = Post-intervention; Arrows indicate direction of improvement; CompACT = Comprehensive Assessment of Acceptance and Commitment Therapy Processes; DASS-21 = Depression, Anxiety, and Stress Scale – 21; MHC-SF = Mental Health Continuum – Short Form; SAS-SR-M = Social Adjustment Scale –Self-Report – Modified

## **Change Interviews**

The change interviews (Table 19) indicate that all participants found the intervention useful, however, one participant (Amber) stated that outcomes were limited due to it covering things she already knew. When asked if they had experienced changes, two participants (Ron and Samuel) felt things had improved whilst one participant (Amber) reported no change, thus reflecting quantitative findings. All three attributed changes to a mixture of the intervention and life-events, with two participants (Amber and Samuel) stating the intervention had reduced the impact of negative life-events. However, one participant (Samuel) reported that the negative event of breaking up with his girlfriend was beneficial in hindsight. Across all interviews, guided phone calls received positive feedback, with two participants (Amber and Samuel) reporting it as the most helpful aspect of the intervention. All participants reported a range of positive aspects about the intervention, however, all three also reported that the language used in the intervention needed amending. Concerns were that it was not easy to understand, that the first chapter was too harsh in its approach, and that accessibility could be improved with more exercises and audio content.

Table 19

*Change Interviews*

|                              | Amber  | Ron   | Samuel   |
|------------------------------|--|---|--|
| Was the intervention useful? | "Kind of yes". It is "definitely a positive and a good thing", however, "a lot of the topics I was already aware of" – "it did make me think about a few things" | "Yes...it gave me new tools and a way of thinking"  | "It was useful" – helped to be "focusing on something that was going to help me"   |
| Any changes experienced?     | "I don't feel it had that much of an effect" – "my mood plummeted...it's recovered a bit since then"   | "I'm certainly a lot better off after it...gave me a more positive feel" – but anxiety not changed as "never really part of reflection which ACT impinges on" | <p>"At the start of it...I was okay" then external events caused things to go "back downhill", but by end he felt "a lot better"</p> <p>"Used to struggle going...shopping" but now "I tend not to think about it" – "It is a massive change for me"</p> |

|              | Amber   | Ron  | Samuel   |
|--------------|---|--|--|
| Attributions | <p>Prompted discussion with housemate about mental health – “opening gambit to talk to someone”</p> <p>“The big fluctuation was an external factor, in terms of my job loss”</p> <p>Intervention may have reduced impact of job loss – “difficult to work out whether that [coping strategy] was something I would have done anyway”</p> <p>Feels she might be “somewhere on the autistic spectrum” and so has a “degree of anxiety from that” of which she is “not quite sure any intervention will help with”</p> | <p>“Primarily related to the actual ACT itself”</p> <p>“There are a lot of external factors” including getting a new job – “the job has enabled me to amplify the ACT”</p> <p>Helped by his “meds” – “aside from the occasional swings...it’s levelled off” – “I’ve been on this one for the past year” <sup>a</sup></p> | <p>Intervention main factor behind improvement – “It’s been really helpful”</p> <p>External life-events created dips in mood – “my ex-wife has stopped me from seeing my two young kids” and “my girlfriend...disappeared and lied and cheated” – “tested” his depression and “went more than back hill” but “I’m sort of picking myself up”</p> <p>Loss of girlfriend also experienced as positive – “I have no worries...nobody is going to cheat on me” and more time to focus on eldest son</p> <p>“Just stopped” medication just prior to external life-events – did not attribute change to this as it was “not a particularly high” dose</p> <p>Intervention reduced impact of life-events- “I’ve dealt with this totally different”.</p> |



|                 | Amber  | Ron  | Samuel  |
|-----------------|--|--|---|
| Helpful Aspects | <p>"The content was good"</p> <p>Helps to keep busy "to distract myself from getting into a bad place"</p> <p>"Reassuring to know that I was kind of along the right track"</p> <p>"Opening gambit to talk to someone [housemate], which was useful"</p> | <p>"The overall module...accepting...aiming for goals"</p> <p>It used a "teaching style that basically speaks for me" – "more like a one to one" – "Gave a more in-depth feel of why things work"</p> <p>"Informative and... entertaining" – uses "amusing" ways to teach concepts</p> | <p>"It wasn't trying to get rid of the negatives...just trying to help me deal with them. So that was a massive usefulness"</p> <p>"Having something to do on a night-time instead of just sat there"</p> <p>The "tug of war", "filing cabinet", and "train" metaphors "helped me quite a bit"</p> <p>Liked working on "values and goals"</p> <p>Best part is "doing the exercises and actually, physically writing it down"</p> <p>Nice "going through the questions [outcome measures] ...to kind of see myself coming back up again"</p> |

|                   | Amber   | Ron  | Samuel  |
|-------------------|---|--|---|
| Unhelpful Aspects | <p>“wasn’t easy to understand” -</p> <p>Not written in “laymen’s terms” – “made to feel stupid”</p>   | <p>First chapter was “really off-putting” – Tells you to “just suck it up and get on with it...I found that...a bit of an affront”</p>   | <p>“Was a challenge” to “get it all done...before the phone call”</p> <p>“The meditation one. I just couldn’t do that”</p> <p>“How it’s written” – “It is really hard”</p>  |
| Guided component  | <p>“It was just good to have someone to ring me once a week to talk to...asking how I was”</p> <p>“Good to talk through weekly content...to reassure me” and to “have someone that cares”</p> <p>“Best” part of intervention.</p> | <p>“Very helpful...that was what fleshed out the...unit” – The unit as a stand-alone, “I don’t think it would be nearly as effective”</p> <p>“I wish that I could have participated more [in the phone calls]”</p> | <p>“It was nice to talk to somebody, to ask how I was getting on... on a weekly basis” – “it perked me up a bit”</p> <p>“A lot easier than appointments” – “we all work”</p> <p>“Having someone to talk to that was actually interested... seemed as though they cared... seemed quite honest and trustworthy” – felt more important than discussing content.</p> |

|             | Amber   | Ron   | Samuel  |
|-------------|---|---|---|
| Suggestions | <p>“Re-word it so it’s more in laymen’s terms”</p> <p>Outcome measures – “questions seemed to be ranked in a strange order”, didn’t capture housemate factors, and it was difficult to consider the previous week as current mood would “skew the results” <sup>b</sup></p> | <p>Change the first chapter to make it less “harsh” and “offensive”</p> | <p>“The way it’s written” – “It could be made a lot easier”</p> <p>“Put a few more exercises in” – “I found it good to write it down”</p> |

---

*Note.* <sup>a</sup> In a follow-up question Ron stated that he had been on a stable dose of anti-depressants for over a year; <sup>b</sup> Following interview, Amber showed the interviewer the questions that had concerned her and it was confirmed they were scored correctly.

## Discussion<sup>20</sup>

This study aimed to determine if outcomes of a guided ACT self-help intervention, within a waiting list population, follow the phases of change considered (within the PMPO) to predict later therapeutic outcome, and whether ACT processes account for changes observed. A mixed-methods multiple-baseline SCED was utilised, with results focusing on three participants who completed the intervention. Findings are discussed below; however, with many results not showing the minimum of three replications, and reported influential external life-events, caution is advised when generalising findings.

### **Does a guided ACT self-help intervention produce outcomes evidenced to predict later therapeutic outcome?**

Analysis of reliable change indicates that guided ACT self-help could be a contributing factor to reliable improvements in psychological flexibility, well-being, depression, and stress, and improving trends in life-functioning. This supports previous findings that ACT self-help produces small-to-medium effect-sizes in depression and psychological flexibility (French et al., 2017); however, in contrast, the current study observed no significant improvement in anxiety and an average percentage deterioration. However, this deterioration could be misleading as only one participant (Amber) showed a deteriorating trend, which she attributed to external life-events, and the remaining two participants (Ron and Samuel) showed an improving trend. As ACT does not aim to target symptoms (Hayes et al., 2006), the lack of reliable change in anxiety might not indicate poor outcome (as reflected by one participant [Ron]).

Observed improvements in well-being are consistent with previous ACT self-help literature showing similar improvements in well-being and quality-of-life (Fledderus et al., 2012; Hesser et al., 2012; Johnston et al., 2010; Levin, Hayes, Pistorello, & Seeley, 2016; Pots et al., 2016; Ritzert et al., 2016; Trompetter,

---

<sup>20</sup> Discussion of additional findings are detailed in Extended Paper 4.1.

Bohlmeijer, Veehof, & Schreurs, 2015). However, lack of life-functioning outcomes within previous literature limits further comparison. This is surprising, given ACT's focus on valued/committed living; however, an individual's *appraisal* of their functioning (i.e., well-being/quality-of-life) may bear more weight within the context of the ACT model. The observed minimal improvements in life-functioning could reflect the PMPO and/or greater number of sessions needed for significance to be reached (Howard et al., 1993; Stulz & Lutz, 2007), or the impact of external life-events. However, it could also indicate that the intervention is unable to impact more longstanding maladaptive patterns of living argued to underlie life-functioning outcomes (Howard et al., 1993), thus limiting recovery and maintaining risk of relapse (Agosti & Stewart, 1998; Staner et al., 1997). This may not be problematic as a waiting list intervention would aim to *initiate* the PMPO, however, it supports arguments for more research considering life-functioning outcomes (Jenkins et al., 2008; Kopta et al., 1994).

### **Do these outcomes follow the temporal predictions of the PMPO?**

The differential change-sensitivity of outcomes was congruent with PMPO predictions. Average percentage improvements, and application of PND criteria, indicate well-being showed the greatest improvement, then symptomatology, with life-functioning improving the least. This supports previous literature within individual psychotherapy (Hilsenroth et al., 2001; Sembill et al., 2017; Stulz & Lutz, 2007).

Visual analysis did not support the *temporal* predictions of the model, with symptomatology the first outcome to display consistent reliable change. This may be more consistent with patterns shown by 20% of participants within Stulz and Lutz's (2007) study, who displayed comparatively rapid symptom remission, with only 55.2% remaining consistent with the PMPO's temporal order. This group was characterised by higher initial impairment, and lower therapist ratings and expectations. As therapist ratings and expectations were not gathered within this study, it is difficult to determine if this participant group

had similar characteristics; moreover, qualitative feedback indicates good therapist ratings. However, the severity of impairment within this participant group may mean that the phases of the PMPO may be less observable, as posited by Joyce et al. (2002).

### **Do ACT processes account for any observed changes in outcomes?**

The psychological flexibility model was mostly supported. Reliable clinical improvement between pre- to post-intervention CompACT scores was only shown by the two participants (Ron and Samuel) who showed improved outcomes, and visual analysis was suggestive of a correlational relationship between psychological flexibility and other outcomes. Whilst causation cannot be implied, the time-series graphs of all three participants indicated that consistent reliable change in psychological flexibility preceded/co-occurred with that of other outcomes. However, as two participants (Amber and Ron) experienced consistent reliable change in psychological flexibility during the baseline this may indicate temporal lability in the CompACT; a finding counter-intuitive to existing test-retest data (Bayliss et al., 2018). When considering PND criteria, one participant (Ron) showed improved well-being without improved psychological flexibility; however, this may relate to an outlying baseline score heavily impacting the predicted trajectory of CompACT scores.

The finding that psychological flexibility is related to other outcomes is supported within ACT self-help literature (French et al., 2017). However, previous research utilised the AAQ (I and II), and this study found that AAQ-II outcomes did *not* support the psychological flexibility model. Inconsistencies between CompACT and AAQ-II outcomes suggest that they may be measuring different constructs and are not directly comparable. This may relate to arguments that the AAQ-II is too heavily loaded on distress and negative affect (Francis et al., 2016; Rochefort, Baldwin, & Chmielewski, 2017), whereby AAQ-II outcomes would be expected to be more closely related to DASS-21 outcomes. This may be supported, as the discrepancy between the average percentage changes could be interpreted as the CompACT demonstrating

greater sensitivity to change in well-being, with expectation that improvements would be seen in the AAQ-II if DASS-21 outcomes were to improve. However, pre-, mid-, and post-intervention graphs do not indicate this, and there is no consistent pattern of the AAQ-II showing reliable change prior to the CompACT despite changes in symptomatology preceding well-being. Therefore, whilst results support the psychological flexibility model, there is a mixed picture regarding the two measures utilised.

### **Acceptability of the Intervention**

Results indicate the intervention was not iatrogenic, as participants (including those who withdrew) attributed observed deteriorations to external life-events. One participant (who withdrew in week three) stated that intervention timings created undue pressure and anxiety, supporting recent findings by Roche et al. (2017). Research components likely increased time pressures, and so acceptability might be improved in non-research settings.

This study's high attrition rate (57.14%) can be argued to fall in the upper range of typical drop-out rates for self-help interventions, with previous systematic literature reviews indicating attrition rates ranging between 18% to 66% within CBT self-help interventions (Joice, Freeman, Toplis, & Bienkowski, 2010), and 5.7% to 55.9% within ACT self-help interventions (French et al., 2017); with such rates shown to be equitable to face-to-face levels of attrition (Cuijpers et al., 2010; Lewis, Pearce, & Bisson, 2012). Mixed attrition rates have also been found in studies on individuals partaking in internet-based self-help whilst awaiting face-to-face psychotherapy, ranging from 30% to 86.7% (Kok et al., 2014; Kenter et al., 2016; Whitfield, et al., 2007), with similar low uptake rates of 26% to 52.8% of eligible individuals on the waiting list (Kenter et al., 2013; Whitfield et al., 2007).

Whilst a lower rate would be expected due to the guided component of the intervention (French et al, 2017; Warrilow & Beech, 2009), the high attrition rate, along with the low uptake, could indicate that other components of the

intervention, research procedures, or combination thereof were unacceptable to participants. Within previous studies, participants received payment, were of differing populations, and gave no qualitative feedback; therefore, it is difficult to say if attrition would have differed if alternative strategies had been adopted. For example, it is argued that lower attrition rates occur when participants are recruited through the media, as they potentially show greater motivation to engage because they made first contact (Joice et al., 2010).

Whilst a level of acceptability can be assumed as all participants who withdrew requested a copy of the materials to read in their own time, amendments are clearly needed; namely a reduction in tone of language perceived as harsh, simpler explanations, and greater flexibility in timings (Extended Paper 4.2.).

The guided phone calls were acceptable to participants. This is unsurprising as addition of guided components can increase efficacy of self-help interventions to levels achieved by face-to-face therapy (Andersson et al., 2014; Cuijpers et al., 2010; French et al., 2017; Hof, Cuijpers, & Stein, 2009), and the positive impact of therapeutic alliance is well established (Ardito & Rabellino, 2011; Martin, Garske, & Davis, 2000). Therefore, phone calls are likely to be an essential component of the intervention.

### **Generalisability of Conclusions, Strengths, and Limitations**

Whilst results appear promising, within SCEDs a minimum of three replications is advised before conclusions can be generalised (Kratochwill et al., 2010), and this criterion has not been met for all outcomes. However, there are certain outcomes where this criterion has been achieved, therefore, strengthening their generalisability. These include:

- Improvements in psychological flexibility occur before, or at the same time as, changes in the other outcomes measured.
- No participant moved out of the clinical range on the measure of life-functioning



- All participants found the intervention useful in some way, but attributed outcomes to both the intervention and external life-events
- The guided phone calls were viewed as a positive aspect of the intervention
- The language within the self-help book needs amending

Despite this, participants are self-selected so may not fully represent the cohort from which they were recruited, thereby limiting generalisability. The recruiting service was unable to provide service data for comparison (Extended Paper 4.3.).

Whilst this article focuses on the three completers, results of participants who withdrew showed a more mixed picture with emerging indication of well-being as the first outcome to improve (prior to psychological flexibility), with reduced outcomes in symptomatology and life-functioning. This could be interpreted as counter-intuitive to the main results; however, interpretations are constrained by the reduced number of weeks completed, and the impact of external life-events leading to their withdrawal, thus limiting their contribution towards the generality of results.

The utilised methodology has improved insight into how outcomes progress over time to inform treatment development; insight often not achieved within RCTs. Care was taken to improve experimental quality (e.g., multiple-baselines, fidelity checks, etc.), and the observation that consistent reliable changes in outcomes did not co-occur indicates that the temporal resolution of the study (i.e., weekly outcomes) was apt. However, there are limitations. Fidelity checks were limited to written information provided by the APs due to feasibility issues preventing audio-recording of phone calls and, even though participants stated they engaged with all the material, this was not formally assessed and could have been subject to response bias<sup>21</sup>. To facilitate

---

<sup>21</sup> Participants with anxiety/depression complete an average of 83% of self-help materials provided to them (Simco, McCusker, & Sewitch, 2014).

participant engagement and enhance ecological validity, the experimental control was compromised (e.g., stability only required on the MHC-SF baseline), therefore, limiting attributions that could be made. Whilst qualitative information was collected to triangulate and strengthen conclusions, the results gave a mixed picture (recognised trait of similar designs [Elliott, 2002]), and may be compromised by response bias despite efforts to reduce it.

However, the change interviews are a clear strength, as over-reliance on quantitative analysis could have produced misattribution of outcomes relating to external life-events. More conservative methods of quantitative analysis could have been adopted (e.g., conservative dual criterion, Fisher et al., 2003); however, due to the intervention being low-level, the decision was made to prioritise sensitivity over specificity (Extended Paper 4.4.). Also, regardless of adequate psychometric properties, outcome measures have limitations (see Boswell, Kraus, Miller, & Lambert, 2015). Whilst care was taken to select appropriate measures, their validity within this context cannot be fully assumed (e.g., SAS-SR-M could be argued to problematise feelings), thereby emphasising the need for qualitative triangulation.

Finally, whilst literature indicates that improvements in well-being, symptomatology, and life-functioning improve later therapeutic outcomes (Falkenström et al., 2014; Lamers et al., 2011; Newman et al., 2006), a longer follow-up period was not possible to explore this further. Other predictors of therapeutic outcome (e.g., therapeutic relationship) were also not explored due to risks of participant burden. This, alongside the other findings, provides clear avenues for clinical implementation and future research.

## **Implications for Clinical Practice and Future Research<sup>22</sup>**

Use of a guided ACT self-help intervention within a waiting list population appears to have beneficial outcomes; however, adaptations are needed prior to

---

<sup>22</sup> See Extended Paper 5 for critical reflections of the research process

future implementation. The severity of difficulties experienced by this client group may mean that a low-level intervention is limited in efficacy, and further research is required to see if findings are repeatable.

Theoretically, the PMPO remains partially supported by this research; however, with no previous research investigating the PMPO within self-help formats, it is difficult to generalise results. The PMPO is based on the premise that therapies follow a temporal order and, within self-help formats, the movement from one stage to another occurs at manualised time-points, which is likely to impact outcomes. It is argued that the PMPO should be used to inform treatment delivery (Sembill et al., 2017), and so more research investigating the PMPO within self-help formats is needed before further recommendations can be made.

The psychological flexibility model is also supported by these findings; therefore, suggesting that psychological flexibility is a suitable target for interventions and can be transdiagnostically applied within diverse waiting list populations. As most of the existing research is correlational, further group time-series designs are required to strengthen arguments regarding the temporal relation between psychological flexibility and clinical outcome.

In conclusion, results indicate that a guided ACT self-help intervention produces outcomes that are (1) evidenced to predict later therapeutic results, (2) partially follow the temporal predictions of the PMPO, and (3) are likely mediated by changes in psychological flexibility. However, amendments are needed to the intervention prior to future implementation. Despite difficulties in application, the value of SCEDs is supported, and further research is vital to investigate the replicability of this study's findings (Extended Paper 4.5.).

## References

- A-Tjak, J. G. L., Davis, M. L., Morina, N., Powers, M. B., Smits, J. A. J., & Emmelkamp, P. M. G. (2015). A meta-analysis of the efficacy of acceptance and commitment therapy for clinically relevant mental and physical health problems. *Psychotherapy and Psychosomatics*, 84(1), 30–36. <https://doi.org/10.1159/000365764>
- Agosti, V., & Stewart, J. W. (1998). Social functioning and residual symptomatology among outpatients who responded to treatment and recovered from major depression. *Journal of Affective Disorders*, 47(1–3), 207–210. [https://doi.org/10.1016/S0165-0327\(97\)00119-5](https://doi.org/10.1016/S0165-0327(97)00119-5)
- Andersson, G., Cuijpers, P., Carlbring, P., Riper, H., & Hedman, E. (2014). Guided Internet-based vs. face-to-face cognitive behavior therapy for psychiatric and somatic disorders: A systematic review and meta-analysis. *World Psychiatry*, 13(3), 288–295. <https://doi.org/10.1002/wps.20151>
- Ardito, R. B., & Rabellino, D. (2011). Therapeutic alliance and outcome of psychotherapy: historical excursus, measurements, and prospects for research. *Frontiers in Psychology*, 2, 270. <https://doi.org/10.3389/fpsyg.2011.00270>
- Ballard, R. (1992). Short forms of the Marlow-Crowne Social Desirability Scale. *Psychological Reports*, 71(3), 1155–1160. <https://doi.org/10.2466/pr0.1992.71.3f.1155>
- Barkham, M., Hardy, G. E., & Startup, M. (1996). The IIP-32: A short version of the Inventory of Interpersonal Problems. *British Journal of Clinical*

*Psychology*, 35(1), 21–35. <https://doi.org/10.1111/j.2044-8260.1996.tb01159.x>

Barlow, D. H., & Hersen, M. (1984). *Single case experimental designs: Strategies for studying behaviour change* (2nd ed.). New York, USA: Pergamon Press.

Baxter, A. J., Scott, K. M., Ferrari, A. J., Norman, R. E., Vos, T., & Whiteford, H. A. (2014). Challenging the myth of an “epidemic” of common mental disorders: Trends in the global prevalence of anxiety and depression between 1990 and 2010. *Depression and Anxiety*, 31(6), 506–516. <https://doi.org/10.1002/da.22230>

Bayliss, K. M., Golijani-Moghaddam, N. G., & Dawson, D. L. (2018). *Confirmatory factor analysis of the Comprehensive Assessment of Acceptance and Commitment Therapy Processes*. Unpublished manuscript, Department of Psychology, University of Nottingham, Nottingham, UK.

Beck, A. T., Epstein, N., Brown, G., & Steer, R. A. (1988). An inventory for measuring clinical anxiety: Psychometric properties. *Journal of Consulting and Clinical Psychology*, 56(6), 893–897. <https://doi.org/10.1037/0022-006X.56.6.893>

Beck, A. T., Steer, R. A., & Brown, G. K. (1996). *Beck Depression Inventory-II*. San Antonio, TX: Psychological Corporation.

Beck, A. T., Ward, C. H., Mendelson, M., Mock, J., & Erbaugh, J. (1961). An Inventory for Measuring Depression. *Archives of General Psychiatry*, 4(6),

561–571. <https://doi.org/10.1001/archpsyc.1961.01710120031004>

Bedford, A., & Deary, I. J. (1997). The personal disturbance scale (DSSI/sAD): Development, use and structure. *Personality and Individual Differences*, 22(4), 493–510. [https://doi.org/10.1016/S0191-8869\(96\)00242-5](https://doi.org/10.1016/S0191-8869(96)00242-5)

Beurs, E. D. E., & Zitman, F. G. (2006). De Brief Symptom Inventory. *Maandblad Geestelijke Volksgezondheid*, 61, 120–141. Retrieved from [https://www.researchgate.net/profile/Edwin\\_De\\_Beurs/publication/284679116\\_The\\_Brief\\_Symptom\\_Inventory\\_BSI\\_Reliability\\_and\\_validity\\_of\\_a\\_practical\\_alternative\\_to\\_SCL-90/links/565c20fd08aefe619b251cba/The-Brief-Symptom-Inventory-BSI-Reliability-and-validity](https://www.researchgate.net/profile/Edwin_De_Beurs/publication/284679116_The_Brief_Symptom_Inventory_BSI_Reliability_and_validity_of_a_practical_alternative_to_SCL-90/links/565c20fd08aefe619b251cba/The-Brief-Symptom-Inventory-BSI-Reliability-and-validity)

Bohlmeijer, E. T., Lamers, S. M. A., & Fledderus, M. (2015). Flourishing in people with depressive symptomatology increases with Acceptance and Commitment Therapy. Post-hoc analyses of a randomized controlled trial. *Behaviour Research and Therapy*, 65, 101–6. <https://doi.org/10.1016/j.brat.2014.12.014>

Bond, F. W., Hayes, S. C., Baer, R. A., Carpenter, K. M., Guenole, N., Orcutt, H. K., ... Zettle, R. D. (2011). Preliminary Psychometric Properties of the Acceptance and Action Questionnaire-II: A Revised Measure of Psychological Inflexibility and Experiential Avoidance. *Behavior Therapy*, 42(4), 676–688. <https://doi.org/10.1016/j.beth.2011.03.007>

Boswell, J. F., Kraus, D. R., Miller, S. D., & Lambert, M. J. (2015). Implementing routine outcome monitoring in clinical practice: Benefits, challenges, and solutions. *Psychotherapy Research*, 25(1), 6–19.

<https://doi.org/10.1080/10503307.2013.817696>

Bottesi, G., Ghisi, M., Altoè, G., Conforti, E., Melli, G., & Sica, C. (2015). The Italian version of the Depression Anxiety Stress Scales-21: Factor structure and psychometric properties on community and clinical samples.

*Comprehensive Psychiatry*, 60, 170–181.

<https://doi.org/10.1016/j.comppsy.2015.04.005>

Braamse, A. M., van Meijel, B., Visser, O. J., Boenink, A. D., Cuijpers, P., Eeltink, C. E. ... Dekker, J. (2015). A randomized clinical trial on the effectiveness of an intervention to treat psychological distress and improve quality of life after autologous stem cell transplantation. *Annals of Hematology*, 95(1), 105-114. <http://doi.org/10.1007/s00277-015-2509-6>

Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology.

*Qualitative Research in Psychology*, 3(2), 77–101.

<https://doi.org/10.1191/1478088706qp063oa>

Cacioppo, J. T., & Petty, R. E. (1982). The Need for Cognition. *Journal of Personality and Social Psychology*, 42(1), 116–131. Retrieved from [http://academic.csuohio.edu/kneuendorf/quillin/cacioppo petty the need for cognition 1982.pdf](http://academic.csuohio.edu/kneuendorf/quillin/cacioppo%20petty%20the%20need%20for%20cognition%201982.pdf)

Callahan, J. L., Swift, J. K., & Hynan, M. T. (2006). Test of the Phase Model of Psychotherapy in a Training Clinic. *Psychological Services*, 3(2), 129–136.

<https://doi.org/10.1037/1541-1559.3.2.129>

Camfield, L., & Skevington, S. M. (2008, September). On subjective well-being

and quality of life. *Journal of Health Psychology*, 13(6), 76-775.

<https://doi.org/10.1177/1359105308093860>

Centre for Reviews and Dissemination. (2011). *Evidence briefing on integrated care pathways in mental health settings*. Leeds, UK: National Institute for Health Research. Retrieved from:

<https://www.york.ac.uk/media/crd/Integrated%20care%20pathways%20evidence%20briefing.pdf>

Cooper, P., Osborn, M., Gath, D., & Feggetter, G. (1982). Evaluation of a modified self-report measure of social adjustment. *British Journal of Psychiatry*, 141, 68–75. <https://doi.org/10.1192/bjp.141.1.68>

Corrigan, P. W. (2001). Getting ahead of the data: A threat to some behavior therapies. *The Behavior Therapist*, 24(9), 189–193. Retrieved from <http://psycnet.apa.org/record/2002-12440-002>

Crowne, D. P., & Marlowe, D. (1960). A new scale of social desirability independent of psychopathology. *Journal of Consulting Psychology*, 24(4), 349–354. <https://doi.org/10.1037/h0047358>

Cuijpers, P., Donker, T., van Straten, A., Li, J., & Andersson, G. (2010). Is guided self-help as effective as face-to-face psychotherapy for depression and anxiety disorders? A systematic review and meta-analysis of comparative outcome studies. *Psychological Medicine*, 40(12), 1943–1957. <https://doi.org/10.1017/S0033291710000772>

Davies, G., Caputi, P., Skarvelis, M., & Ronan, N. (2015). The depression anxiety and stress scales: Reference data from a large psychiatric



- outpatient sample. *Australian Journal of Psychology*, 67(2), 97–104.  
<https://doi.org/10.1111/ajpy.12069>
- Debats, D. L. (1996). Meaning in life: Clinical relevance and predictive power. *British Journal of Clinical Psychology*, 35(4), 503–516.  
<https://doi.org/10.1111/j.2044-8260.1996.tb01207.x>
- Department of Health. (2014). *Achieving Better Access to Mental Health Services by 2020*. London, UK: NHS England. Retrieved from  
[https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/361648/mental-health-access.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/361648/mental-health-access.pdf)
- Deprospero, A., & Cohen, S. (1979). Inconsistent visual analyses of intrasubject data. *Journal of Applied Behavior Analysis*, 12(4), 573–579.  
<https://doi.org/10.1901/jaba.1979.12-573>
- Derogatis, L. R., Rickels, K., & Rock, A. F. (1976). The SCL-90 and the MMPI: a step in the validation of a new self-report scale. *The British Journal of Psychiatry*, 128(3), 280–289. <https://doi.org/10.1192/bjp.128.3.280>
- Dewhurst, E., Novakova, B., & Reuber, M. (2015). A prospective service evaluation of acceptance and commitment therapy for patients with refractory epilepsy. *Epilepsy and Behavior*, 46, 234–241.  
<https://doi.org/10.1016/j.yebeh.2015.01.010>
- Dunn, T. W., Vittengl, J. R., Clark, L. A., Carmody, T., Thase, M. E., & Jarrett, R. B. (2012). Change in psychosocial functioning and depressive symptoms during acute-phase cognitive therapy for depression. *Psychological Medicine*, 42(2), 317–326.

<https://doi.org/10.1017/S0033291711001279>

Edwards, D. W., Yarvis, R. M., Mueller, D. P., Zingale, H. C., & Wagman, W. J. (1978). Test-Taking and the Stability of Adjustment Scales: Can We Assess Patient Deterioration? *Evaluation Review*, 2(2), 275–291.  
<https://doi.org/10.1177/0193841X7800200206>

Elliott, R. (2002). Hermeneutic single-case efficacy design. *Psychotherapy Research*, 12(1), 1–21. <https://doi.org/10.1080/713869614>

Elliott, R. (2010). Psychotherapy change process research: Realizing the promise. *Psychotherapy Research*, 20(2), 123–135.  
<https://doi.org/10.1080/10503300903470743>

Endicott, J., Spitzer, R. L., Fleiss, J. L., & Cohen, J. (1976). The Global Assessment Scale: A Procedure for Measuring Overall Severity of Psychiatric Disturbance. *Archives of General Psychiatry*, 33(6), 766–771.  
<https://doi.org/10.1001/archpsyc.1976.01770060086012>

Erbe, D., Eichert, H. C., Riper, H., & Ebert, D. D. (2017). Blending face-to-face and internet-based interventions for the treatment of mental disorders in adults: systematic review. *Journal of Medical Internet Research*, 19(9), e306. <http://doi.org/10.2196/jmir.6588>

Falkenström, F., Granström, F., & Holmqvist, R. (2014). Working alliance predicts psychotherapy outcome even while controlling for prior symptom improvement. *Psychotherapy Research*, 24(2), 146–159.  
<https://doi.org/10.1080/10503307.2013.847985>

Fenichel, O. (1954). Brief psychotherapy. In H. Fenichel & D. Rapaport (Eds.), *The collected papers of Otto Fenichel* (pp. 243–259). New York, USA: Norton.

Fisher, W. W., Kelley, M. E., & Lomas, J. E. (2003). Visual Aids and Structured Criteria for Improving Visual Inspection and Interpretation of Single-Case Designs. *Journal of Applied Behavior Analysis*, 36(3), 387–406.  
<https://doi.org/10.1901/jaba.2003.36-387>

Fledderus, M., Bohlmeijer, E. T., & Pieterse, M. E. (2010). Does Experiential Avoidance Mediate the Effects of Maladaptive Coping Styles on Psychopathology and Mental Health? *Behavior Modification*, 34(6), 503–519. <https://doi.org/10.1177/0145445510378379>

Fledderus, M., Bohlmeijer, E. T., Pieterse, M. E., & Schreurs, K. M. G. (2012). Acceptance and commitment therapy as guided selfhelp for psychological distress and positive mental health: a randomized controlled trial. *Psychological Medicine*, 42, 485–495. Retrieved from <http://www.narcis.nl/publication/RecordID/oai%3Adoc.utwente.nl%3A82596>

Fledderus, M., Bohlmeijer, E. T., Smit, F., & Westerhof, G. J. (2010). Mental health promotion as a new goal in public mental health care: A randomized controlled trial of an intervention enhancing psychological flexibility. *American Journal of Public Health*, 100(12), 2372–2378.  
<https://doi.org/10.2105/AJPH.2010.196196>

Francis, A. W., Dawson, D. L., & Golijani-Moghaddam, N. G. (2016). The development and validation of the Comprehensive assessment of

Acceptance and Commitment Therapy processes (CompACT). *Journal of Contextual Behavioral Science*, 5(3), 134–145.

<https://doi.org/10.1016/j.jcbs.2016.05.003>

Franklin, M. E., Best, S. H., Wilson, M. A., Loew, B., & Compton, S. N. (2011). Habit Reversal Training and Acceptance and Commitment Therapy for Tourette Syndrome: A Pilot Project. *Journal of Developmental and Physical Disabilities*, 23(1), 49–60. <https://doi.org/10.1007/s10882-010-9221-1>

French, K., Golijani-Moghaddam, N. G., & Schröder, T. (2017). What is the Evidence for the Efficacy of Self-Help Acceptance and Commitment Therapy? A Systematic Review and Meta-Analysis. *Journal of Contextual Behavioral Science*, 1–15. <https://doi.org/10.1016/j.jcbs.2017.08.002>

Frisch, M. B. (1998). Quality of life therapy: An integrative model of etiology, assessment, and treatment of depression and related disorders. *Clinical Psychology: Science and Practice*, 5(1), 19–40. Retrieved from <https://cpb-us-e1.wpmucdn.com/sites.baylor.edu/dist/9/52/files/2014/06/Well-Being-or-QOL-Therapy-in-Health-Care-uibrjh.pdf>

Gallagher, M. W., Lopez, S. J., & Preacher, K. J. (2009). The hierarchical structure of well-being. *Journal of Personality*, 77(4), 1025–1049. <https://doi.org/10.1111/j.1467-6494.2009.00573.x>

Gameroff, M. J., Wickramaratne, P., & Weissman, M. M. (2012). Testing the Short and Screener versions of the Social Adjustment Scale - Self-report (SAS-SR). *International Journal of Methods in Psychiatric Research*, 21(1), 52–65. <https://doi.org/10.1002/mpr.358>

- Gaudiano, B. A. (2009). Ost's (2008) methodological comparison of clinical trials of acceptance and commitment therapy versus cognitive behavior therapy: Matching apples with oranges? *Behaviour Research and Therapy*, 47(12), 1066–70. <https://doi.org/10.1016/j.brat.2009.07.020>
- Goldberg, D. P. (1978). *Manual of the General Health Questionnaire*. Windsor, UK: National Foundation for Educational Research.
- Goldberg, D. P., & Hillier, V. F. (1979). A scaled version of the General Health Questionnaire. *Psychological Medicine*, 9(1), 139–145. <https://doi.org/10.1017/S0033291700021644>
- Grünzig, S. D., Baumeister, H., Bengel, J., Ebert, D., & Krämer, L. (2018). Effectiveness and acceptance of a web-based depression intervention during waiting time for outpatient psychotherapy: study protocol for a randomized controlled trial. *Trials*, 19,285. <http://doi.org/10.1186/s13063-018-2657-9>
- Gyani, A., Shafran, R., Layard, R., & Clark, D. (2011). *Enhancing recovery rates in IAPT services: lessons from analysis of the year one data*. London, UK: The London School of Economics and Political Science. Retrieved from [http://eprints.lse.ac.uk/47486/1/Enhancing%20recovery%20rates%20in%20IAPT%20services\(lsero\).pdf](http://eprints.lse.ac.uk/47486/1/Enhancing%20recovery%20rates%20in%20IAPT%20services(lsero).pdf)
- Härter, M., Heddaeus, D., Steinmann, M., Schreiber, R., Brettschneider, C., König, H. H., & Watzke, B. (2015). Collaborative and stepped care for depression: development of a model project within the Hamburg Network

for Mental Health (psychnet.de). *Bundesgesundheitsblatt Gesundheitsforschung Gesundheitsschutz*, 58(4-5), 420-429.  
<http://doi.org/10.1007/s00103-015-2124-7>

Haug, T., Nordgreen, T. Öst, L. G., Kvale, G. Tangen, T., Andersson, G., ... Havik, O. E. (2015). Stepped care versus face-to-face cognitive behaviour therapy for panic disorder and social anxiety disorder: predictors and moderators of outcome. *Behaviour Research and Therapy*, 71, 76-89. <http://doi.org/10.1016/j.brat.2015.06.002>

Hayes, S. C. (1981). Single case experimental design and empirical clinical practice. *Journal of Consulting and Clinical Psychology*, 49(2), 193–211.  
<https://doi.org/10.1037/0022-006X.49.2.193>

Hayes, S. C. (1993). Analytic Goals and the Varieties of Scientific Contextualism. In S. C. Hayes, L. J. Hayes, T. R. Sarbin, & H. W. Reese (Eds.), *The varieties of scientific contextualism* (pp. 11–27). Reno, NV: Context Press. <https://doi.org/10.4324/9781315745138>

Hayes, S. C., Barnes-holmes, D., & Roche, B. (2002). *Relational Frame Theory. A Post-Skinnerian Account of Human Language and Cognition*. New York: Plenum Press. <https://doi.org/10.1037/1040-3590.20.2.93>

Hayes, S. C., Luoma, J. B., Bond, F. W., Masuda, A., & Lillis, J. (2006). Acceptance and commitment therapy: model, processes and outcomes. *Behaviour Research and Therapy*, 44(1), 1–25.  
<https://doi.org/10.1016/j.brat.2005.06.006>

Hayes, S. C., & Smith, S. (2005). *Get out of your mind and into your life: the*

*new acceptance and commitment therapy*. Oakland, CA: New Harbinger Publications.

Hayes, S. C., Wilson, K. G., Gifford, E. V., Bissett, R., Piasecki, M., Batten, S. V., ... Gregg, J. (2004). A preliminary trial of twelve-step facilitation and acceptance and commitment therapy with polysubstance-abusing methadone-maintained opiate addicts. *Behavior Therapy*, 35(4), 667–688. [https://doi.org/10.1016/S0005-7894\(04\)80014-5](https://doi.org/10.1016/S0005-7894(04)80014-5)

Hayes, S. C., Wilson, K. G., Gifford, E. V., Follette, V. M., & et al, K. (1996). Experiential avoidance and behavioral disorders: A functional dimensional approach to diagnosis and treatment. *Journal of Consulting and Clinical Psychology*, 64(6), 1152–1168. <https://doi.org/10.1037/0022-006X.64.6.1152>

Hayes, S. C., Wilson, K. G., Walser, R., Batten, S., Bach, P., & Moran, D. (2011). *Acceptance and Commitment Therapy: an Experiential Approach to Behaviour Change*. New York: Guildford Press.

Healy, H.-A., Barnes-Holmes, Y., Barnes-Holmes, D., Keogh, C., Luciano, C., & Wilson, K. (2008). An Experimental Test of a Cognitive Defusion Exercise: Coping With Negative and Positive Self-Statements. *The Psychological Record*, 58(4), 623–640. <https://doi.org/10.1007/BF03395641>

Henry, J. D., & Crawford, J. R. (2005). The short-form version of the Depression Anxiety Stress Scales (DASS-21): Construct validity and normative data in a large non-clinical sample. *British Journal of Clinical Psychology*, 44(2), 227–239. <https://doi.org/10.1348/014466505X29657>

- Hesser, H., Gustafsson, T., Lundén, C., Henrikson, O., Fattahi, K., Johnsson, E., ... Andersson, G. (2012). A randomized controlled trial of Internet-delivered cognitive behavior therapy and acceptance and commitment therapy in the treatment of tinnitus. *Journal of Consulting and Clinical Psychology, 80*(4), 649–61. <https://doi.org/10.1037/a0027021>
- Hilsenroth, M. J., Ackerman, S. J., & Blagys, M. D. (2001). Evaluating the phase model of change during short-term psychodynamic psychotherapy. *Psychotherapy Research, 11*(1), 29–47. <https://doi.org/10.1080/713663851>
- Hof, E. van't, Cuijpers, P., & Stein, D. J. (2009). Self-Help and Internet-Guided Interventions in Depression and Anxiety Disorders: A Systematic Review of Meta-Analyses. *CNS Spectrums, 14*(S3), 34–40. <https://doi.org/10.1017/S1092852900027279>
- Hofmann, S. G., Asnaani, A., Vonk, I. J. J., Sawyer, A. T., & Fang, A. (2012). The efficacy of cognitive behavioral therapy: A review of meta-analyses. *Cognitive Therapy and Research, 36*(5), 427–440. <https://doi.org/10.1007/s10608-012-9476-1>
- Holman, G., & Koerner, K. (2014). Single case designs in clinical practice: A contemporary CBS perspective on why and how to. *Journal of Contextual Behavioral Science, 3*(2), 138-147. <https://doi.org/10.1016/j.jcbs.2014.04.006>
- Horvath, A. O., Del Re, A. C., Flückiger, C., & Symonds, D. (2011). Alliance in Individual Psychotherapy. *Psychotherapy, 48*(1), 9-16. <https://doi.org/10.1037/a0022186>



Howard, K. I., Kopta, S. M., Krause, M. S., & Orlinsky, D. E. (1986). The Dose-Effect Relationship in Psychotherapy. *American Psychologist*, 41(2), 159–164. <https://doi.org/10.1037/0003-066X.41.2.159>

Howard, K. I., Lueger, R. J., Maling, M. S., & Martinovich, Z. (1993). A Phase Model of Psychotherapy Outcome: Causal Mediation of Change. *Journal of Consulting and Clinical Psychology*, 61(4), 678–685. <https://doi.org/10.1037/0022-006X.61.4.678>

Irving, L. ., Snyder, R., Cheavens, J., Gravel, L., Hanke, J., Hilberg, P., & Nelson, N. (2004). The Relationships Between Hope and Outcomes at the Pretreatment, Beginning, and Later Phases of Psychotherapy. *Journal of Psychotherapy Integration*, 14(4), 419–443. <https://doi.org/10.1037/1053-0479.14.4.419>

Jacobson, N. S., & Truax, P. (1991). Clinical significance: A statistical approach to defining meaningful change in psychotherapy research. *Journal of Consulting and Clinical Psychology*, 59(1), 12–19. <https://doi.org/10.1037/0022-006X.59.1.12>

Jarvis, W. B. G., & Petty, R. E. (1996). The need to evaluate. *Journal of Personality and Social Psychology*, 70(1), 172–194. <https://doi.org/10.1037/0022-3514.70.1.172>

Jenkins, R., Meltzer, H., Jones, P., Brugha, T., Bebbington, P., Farrell, M., ... Knapp, M. (2008). *Mental health: future challenges*. London, UK: The Government Office for Science. Retrieved from <http://eprints.lse.ac.uk/32763/>

Johnston, M., Foster, M., Shennan, J., Starkey, N. J., & Johnson, A. (2010).

The effectiveness of an Acceptance and Commitment Therapy self-help intervention for chronic pain. *The Clinical Journal of Pain*, 26(5), 393–402.

<https://doi.org/10.1097/AJP.0b013e3181cf59ce>

Joice, A., Freeman, L., Toplis, L., & Bienkowski, G. (2010). *A review and*

*discussion of psychological therapies and interventions delivered within*

*stepped care service models*. Scotland, UK: NHS Education for Scotland.

Retrieved from

[http://www.nes.scot.nhs.uk/media/228092/literature\\_search\\_final\\_full\\_report\\_section\\_1\\_13\\_jan.pdf](http://www.nes.scot.nhs.uk/media/228092/literature_search_final_full_report_section_1_13_jan.pdf)

Joyce, A. S., Ogrodniczuk, J., Piper, W. E., & McCallum, M. (2002). A test of the

phase model of psychotherapy change. *Canadian Journal of Psychiatry*,

47(8), 759–766. <https://doi.org/10.1177/070674370204700807>

Kenter, R. M., Cuijpers, P., Beekman, A., & van Straten, A. (2016).

Effectiveness of a web-based guided self-help intervention for

outpatients with a depressive disorder: short-term results from a

randomized controlled trial. *Journal of Medical Internet Research*, 18(3),

e80. <http://doi.org/10.2196/jmir.4861>

Kenter, R., Warmerdam, L., Brouwer-Dudokdewit, C., Cuijpers, P., & van

Straten, A. (2013). Guided online treatment in routine mental health care:

an observational study on uptake, drop-out and effects. *BMC Psychiatry*,

13, 43. <http://doi.org/10.1186/1471-244X-13-43>

Keyes, C. L. M. (2002). The mental health continuum: from languishing to

flourishing in life. *Journal of Health and Social Behavior*, 43(2), 207–222.

<https://doi.org/10.2307/3090197>

Keyes, C. L. M. (2005). Mental Illness and/or Mental Health? Investigating Axioms of the Complete State Model of Health. *Journal of Consulting and Clinical Psychology*, 73(3), 539–548. <https://doi.org/10.1037/0022-006X.73.3.539>

Keyes, C. L. M. (2013). *Mental Well-Being: International Contributions to the Study of Positive Mental Health*. Dordrecht: Springer.

[https://doi.org/10.1007/978-94-007-5195-8\\_7](https://doi.org/10.1007/978-94-007-5195-8_7)

Keyes, C. L. M., Eisenberg, D., Perry, G. S., Dube, S. R., Kroenke, K., & Dhingra, S. S. (2012). The Relationship of Level of Positive Mental Health With Current Mental Disorders in Predicting Suicidal Behavior and Academic Impairment in College Students. *Journal of American College Health*, 60(2), 126–133. <https://doi.org/10.1080/07448481.2011.608393>

Kok, R. N., van Straten, A., Beekman, A. T., Cuijpers, P. (2014). Short-term effectiveness of a web-based guided self-help for phobia outpatients: randomized controlled trial. *Journal of Medical Internet Research*, 16(9), e226. <http://doi.org/10.2196/jmir.3429>

Kopta, S. M., Howard, K. I., Lowry, J. L., & Beutler, L. E. (1994). Patterns of symptomatic recovery in psychotherapy. *Journal of Consulting and Clinical Psychology*, 62(5), 1009–1016. <https://doi.org/10.1037/0022-006X.62.5.1009>

Kratochwill, T. R., Hitchcock, J., Horner, R. H., Levin, J. R., Odom, S. L.,

- Rindskopf, D. M., & Shadish, W. R. (2010). *Single-Case Design Technical Documentation*. Leeds, UK: What Works Clearing House. Retrieved from [https://ies.ed.gov/ncee/wwc/Docs/ReferenceResources/wwc\\_scd.pdf](https://ies.ed.gov/ncee/wwc/Docs/ReferenceResources/wwc_scd.pdf)
- Lamers, S. M. A., Westerhof, G. J., Bohlmeijer, E. T., Ten Klooster, P. M., & Keyes, C. L. M. (2011). Evaluating the psychometric properties of the mental health Continuum-Short Form (MHC-SF). *Journal of Clinical Psychology*, 67(1), 99–110. <https://doi.org/10.1002/jclp.20741>
- Levin, M. E., & Hayes, S. C. (2009). Is Acceptance and Commitment Therapy Superior to Established Treatment Comparisons? *Psychotherapy and Psychosomatics*, 78(6), 380. <https://doi.org/10.1159/000235979>
- Levin, M. E., Hayes, S. C., Pistorello, J., & Seeley, J. R. (2016). Web-Based Self-Help for Preventing Mental Health Problems in Universities: Comparing Acceptance and Commitment Training to Mental Health Education. *Journal of Clinical Psychology*, 72(3), 207–25. <https://doi.org/10.1002/jclp.22254>
- Lewis, C., Pearce, J., & Bisson, J. I. (2012). Efficacy, cost-effectiveness and acceptability of self-help interventions for anxiety disorders: systematic review. *The British Journal of Psychiatry*, 200, 15-21. <https://doi.org/10.1192/bjp.bp.110.084756>
- Lewis, G., Pelosi, A. J., Araya, R., & Dunn, G. (1992). Measuring psychiatric disorder in the community: A standardized assessment for use by lay interviewers. *Psychological Medicine*, 22(2), 465–486. <https://doi.org/10.1017/S0033291700030415>

Lovibond, S. H., & Lovibond, P. F. (1995). *Manual for the depression anxiety stress scales* (2nd ed.). Sydney: Psychology Foundation. Retrieved from <http://latrobe.summon.serialssolutions.com/2.0.0/link/0/eLvHCXMwY2BQSLZITrJMNjBKM0xLNE8B7YwEtntNTczN01ltLlyTLFDGIJFKczchBqbUPFEGBTfXEGcPXeiOmHjoOEZ8khGw6LQAVr9GYgswL5xqgSDArBoNUqzBNaSpsag3pWphVGyZUpiioIpcrJ5opmZOQAnAiHk>

Martin, D. J., Garske, J. P., & Davis, M. K. (2000). Relation of the therapeutic alliance with outcome and other variables: a meta-analytic review. *Journal of Consulting and Clinical Psychology*, 68(3), 438–450.  
<https://doi.org/10.1037/0022-006X.68.3.438>

Mcmanus, S., Bebbington, P., Jenkins, R., & Brugha, T. (2016). *Mental health and wellbeing in England: Adult Psychiatric Morbidity survey 2014*. Leeds: NHS Digital. Retrieved from <http://content.digital.nhs.uk/catalogue/PUB21748/apms-2014-full-rpt.pdf>

Meier, P. S., Donmall, M. C., Barrowclough, C., McElduff, P., & Heller, R. F. (2005). Predicting the early therapeutic alliance in the treatment of drug misuse. *Addiction*, 100(4), 500–511. <https://doi.org/10.1111/j.1360-0443.2005.01031.x>

Mind. (2010). *We need to talk: Getting the right therapy at the right time*. London, UK: Mind. <https://doi.org/10.1136/vr.f2649>

Mind. (2013). *We still need to talk*. London, UK: Mind. Retrieved from [https://www.mind.org.uk/media/494424/we-still-need-to-talk\\_report.pdf](https://www.mind.org.uk/media/494424/we-still-need-to-talk_report.pdf)

Morse, J. M. (1991). Approaches to qualitative-quantitative methodological

triangulation. *Nursing Research*, 40(2), 120–123.

<https://doi.org/10.1097/00006199-199103000-00014>

National Collaborating Centre for Mental Health. (2011). *Common Mental Health Disorders: Identification and Pathways to Care. NICE Clinical Guideline No. 123*. Leicester, UK: British Psychological Society. Retrieved from <https://www.ncbi.nlm.nih.gov/books/NBK92254/>

Newman, M. G., Crits-christoph, P., Connolly Gibbons, M. B., & Erickson, T. M. (2006). Participant factors in treating anxiety disorders. In L. G. Castonguay & L. E. Beutler (Eds.), *Principles of therapeutic change that work* (pp. 121–154). Oxford, UK: Oxford University Press.

Office for National Statistics. (2017). *Sickness absence in the labour market: 2016*. London, UK: Office for National Statistics. Retrieved from <https://www.ons.gov.uk/employmentandlabourmarket/peopleinwork/labourproductivity/articles/sicknessabsenceinthelabourmarket/2016>

Osman, A., Wong, J. L., Bagge, C. L., Freedenthal, S., Gutierrez, P. M., & Lozano, G. (2012). The Depression Anxiety Stress Scales-21 (DASS-21): Further Examination of Dimensions, Scale Reliability, and Correlates. *Journal of Clinical Psychology*, 68(12), 1322–1338. <https://doi.org/10.1002/jclp.21908>

Öst, L. G. (2014). The efficacy of Acceptance and Commitment Therapy: An updated systematic review and meta-analysis. *Behaviour Research and Therapy*, 61, 105–121. <https://doi.org/10.1016/j.brat.2014.07.018>

Ottenbacher, K. J. (1990). Visual inspection of single-subject data: an empirical

- analysis. *Mental Retardation*, 28(5), 283–90. Retrieved from <http://www.ncbi.nlm.nih.gov/pubmed/2147734>
- Pavot, W., & Diener, E. (2009). Review of the Satisfaction with Life Scale. In E. Diener (Ed.), *Assessing Well-Being: The Collected Works of Ed Diener* (pp. 101–118). <https://doi.org/10.1007/978-90-481-2354-4>
- Plumb, J. C., & Vilardaga, R. (2010). Assessing Treatment Integrity in Acceptance and Commitment Therapy: Strategies and Suggestions. *International Journal of Behavioral Consultation and Therapy*, 6(3), 263–278. <https://doi.org/10.1037/h0100912>
- Pots, W. T. M., Fledderus, M., Meulenbeek, P. A. M., Ten Klooster, P. M., Schreurs, K. M. G., & Bohlmeijer, E. T. (2016). Acceptance and commitment therapy as a web-based intervention for depressive symptoms: randomised controlled trial. *The British Journal of Psychiatry : The Journal of Mental Science*, 208(1), 69–77. <https://doi.org/10.1192/bjp.bp.114.146068>
- Powers, M. B., Zum Vörde Sive Vörding, M. B., & Emmelkamp, P. M. G. (2009). Acceptance and commitment therapy: A meta-analytic review. *Psychotherapy and Psychosomatics*, 78(2), 73–80. <https://doi.org/10.1159/000190790>
- Prochaska, J. O., & Di Clemente, C. C. (1982). Transtheoretical therapy: Toward a more integrative model of change. *Psychotherapy*, 19(3), 276–288. <https://doi.org/10.1037/h0088437>

Qualtrics software, Version April to October 2017 of Qualtrics. Copyright © 2017

Qualtrics. Qualtrics and all other Qualtrics product or service names are registered trademarks of Qualtrics, Provo, UT, USA.

<http://www.qualtrics.com>

Reins, J. A., Ebert, D. D., Lehr, D., Riper, H., Cuijpers, P., Berking, M. (2013).

Internet-based treatment of major depression for patients on a waiting list for inpatient psychotherapy: protocol for a multi-centre randomised controlled trial. *BMC Psychiatry*, 13, 318. <http://doi.org/10.1186/1471-244X-13-318>

Rethink Mental Illness. (2014). *Lost Generation: Why young people with*

*psychosis are being left behind, and what needs to change*. London, UK:

Rethink Mental Illness. Retrieved from

<https://www.rethink.org/media/973932/LOST GENERATION - Rethink Mental Illness report.pdf>

Ritzert, T. R., Forsyth, J. P., Sheppard, S. C., Boswell, J. F., Berghoff, C. R., &

Eifert, G. H. (2016). Evaluating the effectiveness of ACT for anxiety disorders in a self-help context: Outcomes from a randomized wait-list controlled trial. *Behavior Therapy*, 47(4), 444–459.

<https://doi.org/10.1016/j.beth.2016.03.001>

Robitschek, C., & Keyes, C. L. M. (2009). Keyes's model of mental health with

personal growth initiative as a parsimonious predictor. *Journal of*

*Counseling Psychology*, 56(2), 321–329. <https://doi.org/10.1037/a0013954>

Roche, L., Dawson, D. L., Golijani-Moghaddam, N. G., Abey, A., & Gresswell,



- D. M. (2017). An Acceptance and Commitment Therapy (ACT) intervention for Chronic Fatigue Syndrome (CFS): A case series approach. *Journal of Contextual Behavioral Science*, 6(2), 178–186.  
<https://doi.org/10.1016/j.jcbs.2017.04.007>
- Rocheftort, C., Baldwin, A. S., & Chmielewski, M. (2017). Experiential Avoidance: An Examination of the Construct Validity of the AAQ-II and MEAQ. *Behavior Therapy*. Elsevier.  
<https://doi.org/10.1016/j.beth.2017.08.008>
- Rosenburg, M. (1979). *Conceiving the Self*. New York, USA: Basic Books.
- Royal College of Psychiatrists. (2014). *Report of the Second Round of the National Audit of Schizophrenia (NAS)*. London, UK: Healthcare Quality Improvement Partnership. Retrieved from  
[http://www.rcpsych.ac.uk/pdf/FINAL report for the second round of the National Audit of Schizophrenia - 8.10.14v2.pdf](http://www.rcpsych.ac.uk/pdf/FINAL%20report%20for%20the%20second%20round%20of%20the%20National%20Audit%20of%20Schizophrenia%20-%208.10.14v2.pdf)
- Scruggs, T. E., & Mastropieri, M. A. (1998). Summarizing Single-Subject Research. *Behavior Modification*, 22(3), 221–242.  
<https://doi.org/10.1177/01454455980223001>
- Sembiell, A., Vocks, S., Kosfelder, J., & Schöttke, H. (2017). The phase model of psychotherapy outcome: Domain-specific trajectories of change in outpatient treatment. *Psychotherapy Research*, 1–12.  
<https://doi.org/10.1080/10503307.2017.1405170>
- Simco, R., McCusker, J., & Sewitch, M. (2014). Adherence to self-care interventions for depression or anxiety: A systematic review. *Health*

*Education Journal*, 73(6), 714–730.

<https://doi.org/10.1177/0017896913514738>

Smith, J. D. (2012). Single-case experimental designs: A systematic review of published research and current standards. *Psychological Methods*, 17(4), 510–550. <https://doi.org/10.1037/a0029312>

Smout, M. F., Hayes, L., Atkins, P. W. B., Klausen, J., & Duguid, J. E. (2012). The empirically supported status of acceptance and commitment therapy: An update. *Clinical Psychologist*, 16(3), 97–109. <https://doi.org/10.1111/j.1742-9552.2012.00051.x>

Staner, L., Tracy, A., Dramaix, M., Genevrois, C., Vanderelst, M., Vilane, A., ... Mendlewicz, J. (1997). Clinical and psychosocial predictors of recurrence in recovered bipolar and unipolar depressives: A one-year controlled prospective study. *Psychiatry Research*, 69(1), 39–51. [https://doi.org/10.1016/S0165-1781\(96\)03021-1](https://doi.org/10.1016/S0165-1781(96)03021-1)

Stevens, S. E., Hynan, M. T., & Allen, M. (2000). A meta-analysis of common factor and specific treatment effects across the outcome domains of the phase model of psychotherapy. *Clinical Psychology: Science and Practice*, 7(3), 273–290. <https://doi.org/10.1093/clipsy.7.3.273>

Stulz, N., & Lutz, W. (2007). Multidimensional patterns of change in outpatient psychotherapy: The phase model revisited. *Journal of Clinical Psychology*, 63(9), 817–833. <https://doi.org/10.1002/jclp.20397>

The King's Fund, & The Health Foundation. (2015). *Making change happen: a Transformation Fund for the NHS*. London, UK: The Health Foundation.

Retrieved from

[https://www.kingsfund.org.uk/sites/default/files/field/field\\_publication\\_file/making-change-possible-a-transformation-fund-for-the-nhs-kingsfund-healthfdn-jul15.pdf](https://www.kingsfund.org.uk/sites/default/files/field/field_publication_file/making-change-possible-a-transformation-fund-for-the-nhs-kingsfund-healthfdn-jul15.pdf)

The King's Fund. (2015). *Mental health under pressure*. London, UK: The King's Fund. Retrieved from

[https://www.kingsfund.org.uk/sites/default/files/field/field\\_publication\\_file/mental-health-under-pressure-nov15\\_0.pdf](https://www.kingsfund.org.uk/sites/default/files/field/field_publication_file/mental-health-under-pressure-nov15_0.pdf)

Trompetter, H. R., Bohlmeijer, E. T., Lamers, S. M. A., & Schreurs, K. M. G.

(2016). Positive Psychological Wellbeing Is Required for Online Self-Help Acceptance and Commitment Therapy for Chronic Pain to be Effective.

*Frontiers in Psychology*, 7, 353. <https://doi.org/10.3389/fpsyg.2016.00353>

Trompetter, H. R., Bohlmeijer, E. T., Veehof, M. M., & Schreurs, K. M. G.

(2015). Internet-based guided self-help intervention for chronic pain based on Acceptance and Commitment Therapy: a randomized controlled trial.

*Journal of Behavioral Medicine*, 38(1), 66–80.

<https://doi.org/10.1007/s10865-014-9579-0>

Trompetter, H. R., Lamers, S. M. A., Westerhof, G. J., Fledderus, M., &

Bohlmeijer, E. T. (2017). Both positive mental health and psychopathology should be monitored in psychotherapy: Confirmation for the dual-factor model in acceptance and commitment therapy. *Behaviour Research and Therapy*, 91, 58–63. <https://doi.org/10.1016/j.brat.2017.01.008>

Tschuschke, V., Cramer, A., Koehler, M., Berglar, J., Muth, K., Staczan, P., ...

Koemeda-Lutz, M. (2015). The role of therapists' treatment adherence, professional experience, therapeutic alliance, and clients' severity of psychological problems: Prediction of treatment outcome in eight different psychotherapy approaches. Preliminary results of a naturalistic.

*Psychotherapy Research*, 25(4), 420–434.

<https://doi.org/10.1080/10503307.2014.896055>

Vilardaga, R. (2014). Technical, practical and analytic innovations in single case designs for contextual behavioral scientists. *Journal of Contextual*

*Behavioral Science*, 3(2), 136–137.

<https://doi.org/10.1016/j.jcbs.2014.05.002>

Villatte, J. L., Vilardaga, R., Villatte, M., Plumb Vilardaga, J. C., Atkins, D. C., &

Hayes, S. C. (2016). Acceptance and Commitment Therapy modules: Differential impact on treatment processes and outcomes. *Behaviour Research and Therapy*, 77, 52–61.

<https://doi.org/10.1016/j.brat.2015.12.001>

Watson, D., Clark, L. A., & Tellegen, A. (1988). Development and validation of brief measures of positive and negative affect: The PANAS scales. *Journal of Personality and Social Psychology*, 54(6), 1063–1070.

<https://doi.org/10.1037/0022-3514.54.6.1063>

Wegner, D. M., & Zanakos, S. (1994). Chronic Thought Suppression. *Journal of Personality*, 62(4), 615–640. <https://doi.org/10.1111/j.1467-6494.1994.tb00311.x>

Whitfield, G., Williams, C., Hinshelwood, R., Pashley, A., Campsie, L. (2007).

The impact of a novel computerized CBT CD-Rom (overcoming depression) offered to patients referred to clinical psychology. *European Psychiatry*, 22, S248. <http://doi.org/10.1016/j.eurpsy.2007.01.831>

Zigmond, A. S., & Snaith, R. P. (1983). The Hospital Anxiety and Depression

Scale. *Acta Psychiatrica Scandinavica*, 67(6), 361–370.

<https://doi.org/10.1111/j.1600-0447.1983.tb09716.x>



## **Extended Paper**





To provide greater depth to the inferences that can be drawn, this Extended Paper aims to explore further into content that could not be expanded on within the Journal Paper. For example, the extended introduction expands on the nature of common mental health disorders (CMDs) and psychotherapeutic waiting lists, Step-4 services, the Phase Model of Psychotherapeutic Outcome (PMPO), Acceptance and Commitment Therapy (ACT), self-help, and the research rationale. Further content is also provided in the extended methods, results, and discussion sections before concluding with reflections on the research process.

## **1. Extended Introduction**

### **1.1. Rationale for Target Journal**

The Journal of Contextual Behavioural Science was considered suitable due to its strong connections to Contextual Behavioural Science and promotion of multi-level and multi-method exploration of the variables influencing human behaviour. As such, it is a leading journal in ACT research and the findings detailed in this paper are likely to be relevant to its target audience. In 2016 it had an impact factor of 1.62, which was favourable to the median impact factor of 1.31 for applied psychology journals. Therefore, it was considered an effective means of dissemination of the present study.

### **1.2. Common Mental Disorders**

The National Collaborating Centre for Mental Health (2011) define CMD as mental health disorders with increased prevalence, with CMDs most often falling under the wider brackets of “anxiety” and “depression”. Most prevalent is mixed anxiety and depression, followed by generalised anxiety disorder, post-traumatic stress disorder, depression, phobias, obsessive compulsive disorder, and panic disorders (National Institute for Health and Care Excellence [NICE], 2011). The most recent Adult Psychiatric Morbidity Survey (Mcmanus,

Bebbington, Jenkins, & Brugha, 2016) reported that, whilst overall prevalence of CMD is 17% of adults within England, it is more commonly reported in women (19%) compared to men (12%), and 10% of women report more severe symptoms compared to 6% of men. The results also indicated that the long-term trend of CMD prevalence rates is increasing in adults aged 16-64 (6.9% in 1993 to 9.3% in 2014). However, it needs to be considered that changes in rates could be attributable to increased awareness and shifts in diagnostic sensitivity.

Risk factors for CMD are diverse, with higher rates reported within females, middle-aged individuals, those of lower socio-economic populations, minority status groups, individuals who engage in drug/alcohol behaviours, carers, ex-military personnel, individuals with cognitive impairment, those with learning disabilities and/or autistic spectrum disorders, and/or individuals with physical health problems (American Psychiatric Association [APA], 2013; Mcmanus et al., 2016; National Collaborating Centre for Mental Health, 2011). Not all individuals with such risk factors develop CMDs, and it is likely that a range of causal factors are at play.

Biological theories of CMDs include genetic (Meyer-Lindenberg & Weinberger, 2006), hormonal (Paus, Keshavan, & Giedd, 2008), and neurotransmitter dysfunction (Beaulieu, 2012). Bio-psychosocial models posit that life stressors (e.g., abuse, immigration, financial difficulties, etc.) can moderate changes in neurotransmitter functioning (Mahar, Bambico, Mechawar, & Nobrega, 2014); whereby biological, psychological, and social factors work in combination to determine an individual's presenting level of distress. However, the links between these factors remain vague, and are perhaps better hypothesised on an individual level through psychological formulation.

Psychological theories range from intrapersonal models such as Cognitive Behavioural Therapy (CBT), where an individual's faulty appraisals about themselves, the world, and others contribute to their distress (Beck, 1963; Golijani-Moghaddam & Dawson, 2016), to interpersonal models such as Systemic Therapy, where distress is considered a symptom of the wider

systems surrounding the individual (Rivett & Street, 2009). Given the wide range of psychological theories, they will not be presented here, however, a more in-depth consideration of the differing models and their critiques can be found in Dawson and Golijani-Moghaddam (2016).

The presentation of CMDs varies depending on the individual and specified “diagnosis” as listed in the Diagnostic and Statistical Manual of Mental Disorders (5<sup>th</sup> ed.; DSM-5; APA, 2013). Individuals presenting with depressive disorders (weekly UK prevalence = 3.8%; Mcmanus et al., 2016) typically report tearfulness, apathy, suicidality, irritability, and somatic and cognitive impairment (APA, 2013, p. 155-188); whilst those expressing difficulties falling under the wider bracket of anxiety disorders (weekly UK prevalence = 5.9-11.1%; Mcmanus et al., 2016) typically report excessive fear, anxiety, avoidance, hypervigilance, and somatic related responses such as rapid breathing and faster heart rate (APA, 2013, p. 189-234). Those diagnosed with trauma related presentations (monthly UK prevalence = 4.4%; Mcmanus et al., 2016) are detailed as experiencing similar fear/anxiety responses, alongside anhedonia and dysphoric symptoms, externalised anger, flashbacks, and/or dissociative symptoms, which have specifically resulted from the experience of a traumatic event (APA, 2013, p. 265-290). However, with trauma increasingly being formulated as underlying more complex and severe CMD presentations (as described within Step-4 populations; The Health Scrutiny Committee for Lincolnshire, 2016), it is likely that clarity in differentiating CMD presentations is difficult to achieve.

This is further exacerbated by the high comorbidity between different CMDs. For example, among individuals who met criteria for at least one CMD, 19.1% met criteria for two CMDs, and 12.2% met criteria for three (Weich et al., 2011). With such high rates of comorbidity, and large overlaps in the symptomatology of disorders listed within the DSM-5 (APA, 2013), it is often argued that diagnostic labels should instead be replaced with a focus on the formulation of symptoms (Division of Clinical Psychology, 2013; Extended Paper 1.9.); however, use of diagnostic terminology can enable smoother

navigation of research to better inform treatment (Professional Practice Board, 2013).

Recommended treatment for CMDs include medication, psychotherapy, or a combination of the two (NICE, 2011). Current UK psychotherapeutic treatment pathways are discussed further in Extended Paper 1.3.

### **1.3. Increasing Access to Psychological Therapies**

Increasing Access to Psychological Therapies (IAPT) was initiated in the UK in 2008 following recognition that individuals were struggling to gain access to psychotherapeutic treatment for CMDs (The Centre for Economic Performance's Mental Health Policy Group, 2006; The Mental Health Taskforce, 2016), with the aim of supplying evidenced based psychological therapies via a stepped-care approach (Figure 11). This means that the level of intervention offered to individuals can be tailored to their level of need, therefore, streamlining resources and improving access to services. This has improved access to psychological intervention in primary care settings (Steps 1-3), however, those requiring mental health specialist teams (Step 4) have still had to wait over a year to access treatment (Royal College of Psychiatrists, 2014).

|        | <u>Responsibility</u>                                | <u>Focus</u>  | <u>Treatment</u>  |
|--------|--|---|---|
| Step 5 | Inpatient care, crisis teams                         | Risk to life, severe self-neglect                                       | Medication, combined treatments, ECT  |
| Step 4 | Mental health specialists, including crisis teams    | Treatment-resistant, recurrent, atypical, and those at significant risk | Medication, complex psychological interventions, combined treatments  |
| Step 3 | Primary care team, primary care mental health worker | Moderate or severe mental health problems                               | Medication, psychological interventions, social support   |
| Step 2 | Primary care team, primary care mental health worker | Mild mental health problems   | Watchful waiting, guided self-help, computerised Cognitive Behavioural Therapy, exercise, brief psychological interventions |
| Step 1 | GP, practice nurse                                   | Recognition   | Assessment  |

*Figure 11. Stepped Care Model*

Typically, individuals seeking treatment for mental health difficulties will self-refer to IAPT following recommendation from a GP or practice nurse (Step 1). Assessment follows NICE (2011) recommendations, whereby an individual's history and presenting difficulties are considered, and the individual triaged to the appropriate "Step".

Interventions provided within Steps 2-3 are only those deemed by NICE (2011) to have a suitable evidence base, based upon randomised controlled trials (RCTs). These include CBT, Interpersonal Therapy, Eye-movement Desensitisation and Reprocessing, Short-Term Psychodynamic Psychotherapy, Counselling, behavioural approaches, and psychoeducation; which are delivered via self-help, guided self-help, group programs, couples therapy, and/or short-term individual therapy (maximum 12 sessions). ACT is not currently one of the treatment options available. Interventions are typically delivered by Psychological Wellbeing Practitioners or Cognitive Behavioural Therapists.

In contrast, Step-4 interventions not only utilise NICE recommended treatment, but also draw from emerging evidence of alternative interventions such as Cognitive Analytic Therapy and ACT (The Health Scrutiny Committee for Lincolnshire, 2016). Interventions typically involve longer-term individual or group therapy (maximum 18 sessions) with greater emphasis on developing insight into personal motivations underlying current presentation, and recognition of the impact of past trauma (identified as a common factor within individuals with more complex presentations). Interventions are typically delivered by Clinical Psychologists or Dynamic Psychotherapists.

If the level of intervention given has not proven effective an individual can be “stepped-up” to a higher level if appropriate. As such, a proportion of individuals with more enduring mental health difficulties may present to Step-4 specialist services having already experienced low-level interventions from Steps 2-3. Currently, the literature on the impact of having a low-level intervention prior to being “stepped-up” to a more intense intervention is mixed (See Journal Paper), however, there is evidence to suggest that prior experience of therapy leads to more rapid improvements in later treatment (Stulz & Lutz, 2007).

#### **1.4. Epidemiology and Impact of Waiting Lists**

In 2016/2017, 1,039,471 adults were receiving mental health treatment (Health and Social Care Information Centre, 2017), with over two-million people a year having some sort of contact with mental health services (Dormon, 2015). Alongside this, since 2007, individuals are increasingly more likely to utilise community services and discuss their mental health with their GP (Mcmanus et al., 2016; The King’s Fund, 2015). However, latest figures suggest that, whilst the majority of those with psychotic disorders access treatment, only half of those with depression, obsessive compulsive disorder, phobias, anxiety disorders, post-traumatic stress disorder, and drug dependence are likely to do so (Mcmanus et al., 2016). Also, whilst there has been a rise in the number of individuals in contact with secondary mental health services, there has been a

steady reduction in the number of contacts received (The King's Fund, 2015): only 52% of service users reported seeing a professional in the previous month in 2014, compared to 59% in 2011 (Dormon, 2015).

Absence of robust, up-to-date data makes it difficult to determine the *current* epidemiology of waiting times within secondary mental health services, however, what evidence there is suggests that waits are variable, and that waits for specialist services are a particular problem (Dormon, 2015). For example, in 2013/2014, 20% of individuals with a personality disorder were likely to wait over a year (Health and Social Care Information Centre, 2014), average waits for early intervention in psychosis services were between 10 to 17 weeks (Department of Health, 2014a), and 50% of people with a severe mental illness reported waiting over three months for talking therapy, with 10% waiting over a year (Mind, 2013). Whilst this triggered a cross-government initiative to introduce standardised waiting times in line with physical health services (Department of Health, 2014b), parity of esteem has not yet been achieved, and a substantial proportion of individuals with severe CMDs are still waiting over a year to receive appropriate treatment (Mcmanus et al., 2016; Royal College of Psychiatrists, 2014; The King's Fund, 2015).

As detailed in the journal article, such waiting lists can have a negative individual and economic impact. The negative impact of waiting can also be exacerbated by discrimination (experienced by 90% of individuals with mental health difficulties), and loss of wages (Dormon, 2015). Individuals who wait 1-2 years for therapy are five times less likely to return to work compared to those who waited less than three months and, with 70% of medically unexplained physical symptoms thought due to depression, the impact of physical health difficulties should also be considered (Mind, 2010).

Such negative impacts of waiting can be deemed “common sense”, however, evidence is conflicted. Individuals within psychotherapy waiting lists have shown stability in Clinical Outcomes in Routine Evaluation – Outcome Measure (CORE-OM; Evans et al., 2000) and Beck Depression Inventory (BDI; Beck, Steer, & Brown, 1996) scores between initial assessment and the first

psychotherapy session up to six months later (Barkham, Mullin, Leach, Stiles, & Lucock, 2007), and participants in RCTs who are allocated to waiting list control groups often show stable or sometimes improving scores. Whilst improvements could be attributed to feeling hopeful that treatment will start soon (Trompetter, Bohlmeijer, Veehof, & Schreurs, 2015), it is unclear, and likely unethical to test, what the optimum length of a waiting list is. Also, individuals who have consented to be randomised within an RCT are aware of the potential to experience a waiting list, and the exact length of time they are due to wait, thus impacting how the wait is cognitively perceived.

Despite this, the above provides the wider context of the epidemiology and impact of UK waiting lists. Whilst the absence of data makes conclusions difficult to draw, it is evident that more changes are needed to improve access to mental health services for individuals with more severe mental health presentations.

### **1.5. Current Service Provision within LPFT Step-4 Services**

At the time of this study's development, within the Step-4 Lincolnshire Partnership NHS Foundation Trust (LPFT)-East service (Boston, Skegness, Louth) there were just under 340 individuals awaiting therapy, with an average referral rate of six per week. The service was only working under the equivalent of 1.6 qualified psychologists, and the waiting list was growing rather than reducing over time. On average it took 2.5 months from referral to initial assessment, and two years from referral to treatment (estimated values gathered February 2016 with service permission).

These figures were not unique to the LPFT-East service, with a published Step-4 Adult Psychology Services proposal in April 2016 (Jackson, 2016) detailing that, across all Step-4 LPFT services, waiting lists peaked in early 2015 at around 1100 patients, before reducing to 800 individuals at the



time of the report<sup>23</sup>. The reduction was attributed to the addition of group interventions; however, with waiting times of up to two years, there was an identified need for cost-effective, low-level interventions to (a) support the individuals who were waiting, and/or (b) reduce the numbers waiting for individual therapy.

The above indicates why there is increased interest in the evidence base and utility of self-help interventions within step-4 waiting list populations; therefore, providing the context within which this thesis was developed.

## **1.6. Evidence Base for the Phase Model of Psychotherapeutic Outcome**

Research into the trajectories of change over the course of psychotherapeutic treatment has enabled more precision in the prediction of therapeutic success/deterioration (Lambert, Hansen, & Finch, 2001; Lutz, Stulz, Martinovich, Leon, & Saunders, 2009). Initial focus was placed on the Dose-Effect Model (Howard, Kopta, Krause, & Orlinsky, 1986), whereby the number of sessions needed (“dose”) to produce a level of outcome (“effect”) was investigated. Research has indicated a log-linear pattern, where longer therapy leads to better outcomes, but that progressively less improvement is observed as sessions progress (Hansen & Lambert, 2003; Lutz, Lowry, Kopta, Einstein, & Howard, 2001; Stulz, Lutz, Kopta, Minami, & Saunders, 2013). However, such analysis has been criticised for methodological flaws, with evidence for both linear and log-linear models being argued (Barkham et al., 1996; Falkenström, Josefsson, Berggren, & Holmqvist, 2016; Stulz et al., 2013).

Further to this, the Dose-Effect Model was also critiqued for only considering *global* outcomes. Therefore, Howard et al. (1993) instead investigated the trajectories of three sub-domains of psychotherapeutic outcome: well-being, symptomatology, and life-functioning. Despite predictions

---

<sup>23</sup> Step-4 LPFT services have since temporarily limited referrals, which has achieved a significant reduction in waiting times to within governmental standards.

of co-occurrence and reciprocal influence amongst the domains, psychotherapeutic change was instead found to be progressive, sequential, and causally mediated; with change first occurring in well-being, then symptomatology, and finally life-functioning (as detailed in Journal Paper). Such findings are not necessarily new (e.g., Whitehorn's (1959) three stage model: expect well, feel well, work well), and are argued to be vital to informing treatment pathways (Kopta, Howard, Lowry, & Beutler, 1994); however, despite the model gaining wide-spread support, evidence has not always been consistent (Sembill, Vocks, Kosfelder, & Schöttke, 2017).

Howard et al.'s (1993) initial study of 529 psychotherapy patients over 17 sessions shows the temporal predictions of the model through a method of causal analysis (see Blalock, 1964), visual analysis of trajectories, and average levels of change in each of the three domains. Results indicated greater average levels of improvement in well-being (1 SD), than symptomatology (.80 SD) and life-functioning (.68 SD), with the percentage of participants experiencing clinically significant improvement in each domain reported as 85%, 74%, and 64% respectively. However, their analysis of clinical significance was critiqued for not being conservative enough; for example, later application of Jacobson and Truax (1991) guidelines indicated that the finding that 53% of participants experienced clinical improvement in well-being by session eight could be assessed as a more conservative 22% (Kadera, Lambert, & Andrews, 1996), and Joyce, Ogrodniczuk, Piper, and McCallum (2002) argued that the results may be impacted by the inclusion of results from individuals who dropped out of therapy part way through.

Despite this, the model has still been supported within the literature across other large outpatient psychotherapy samples, mostly consisting of individuals presenting with depression (e.g., Barkham et al., 1996; Kopta et al., 1994; Mintz, Mintz, Arruda, & Hwang, 1992). There are also more recent findings. Callahan, Swift, and Hynan (2006), replicated findings within a sample of 20 participants receiving therapy within a training clinic<sup>24</sup>, however, could be

---

<sup>24</sup> Where therapy is conducted by Trainee Clinical Psychologists

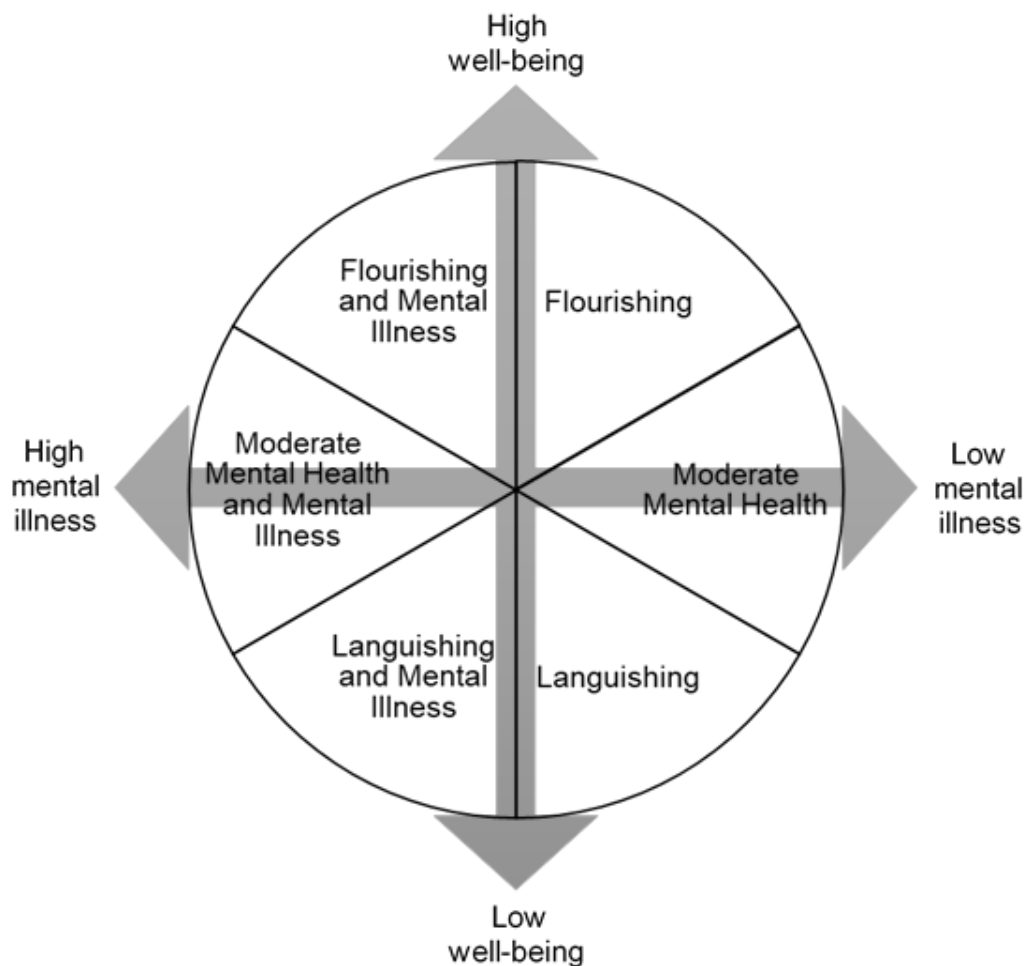
critiqued for only analysing those who showed clinically reliable change. Findings by Hilsenroth, Ackerman, and Blagys (2001) and Dunn et al. (2012) also replicated results, with improvements in well-being and symptomatology predicting later improvement in life-functioning. Finally, the most recent findings by Sembill et al. (2017) indicate that well-being and symptomatology progress in a log-linear pattern, whilst life-functioning improves with a slower, more linear trajectory. However, it needs to be considered that such outcomes are considered at the group level, and that not all individuals showed the predicted trajectory of the PMPO.

An example of this is Stulz and Lutz's (2007) study where, across a sample of 1128 outpatients, 65.8% of participants were found to follow the predicted order of change as posited by the PMPO; a significant finding because they utilised more conservative procedures of analysis. However, they also found evidence that divided participants into three groups based upon the observed trajectories of outcomes: (1) "phase model consistent" (63% of sample): participants who showed moderate treatment progress in all three domains (70.7% PMPO consistent), (2) "partial rapid responders" (17% of sample): participants with prior experience of therapy who showed rapid improvement in well-being and symptomatology, but almost no improvement in life-functioning (60.5% PMPO consistent), and (3) "symptomatically highly impaired" (20% of sample): participants with more severe presentations at commencement of therapy, and low expectations of the therapy and therapist, who showed clear-cut improvement in well-being and symptomatology but were more likely to violate the predictions of the PMPO (55.2% PMPO consistent). This final group was linked to the findings of Joyce et al. (2002), who found limited evidence of the PMPO within a sample of 144 participants. Joyce et al. (2002) argued that this was due to their severe presentations, and the manualised nature of the face-to-face Interpretive Therapy that was administered. However, the first outcomes were not collected until session four, and so the initial pattern of change may have been missed; therefore, without further evidence, it is difficult to draw strong conclusions.

The difficulty with the above research is that it has only been applied within outpatient populations receiving face-to-face psychotherapeutic therapies and, if the type of therapy and clinical presentation is influential, as suggested by Joyce et al. (2002) and Stulz and Lutz (2007), it needs to be tested in other populations. Certainly, within this study's sample (individuals with severe CMD receiving manualised guided self-help treatment), it may be that outcomes consistent with the PMPO may be less likely to be observed. Previous research can also be critiqued for often only taking outcomes at three or four time-points, and so research conducting session-by-session temporal analyses could further enhance the understanding of the model in relation to session number and content.

### **1.7. Defining Subjective Well-Being within the Context of Positive Mental Health**

The past 60 years have seen a push towards “positive” views of health; where being healthy is not just the absence of illness, but also includes the enhancement of physical, mental, and social aspects of life (Jahoda, 1958; World Health Organization, 2006). This concept has informed Keyes's (2002, 2005) Dual-Continua Model of mental health (Figure 12), with mental illness on one continuum (low to high), and a second continuum of well-being ranging from “languishing” (below average), to “moderately mentally healthy” (average), to “flourishing” (above average). The advantages of such a model is that it de-pathologises symptoms (e.g., removes the assumption that if you have symptoms of mental illness you must be unhappy in life), and encourages the enhancement of well-being (rather than just reducing symptomatology). The Dual-Continua Model is argued to fit well with ACT's position on enhancing valued living regardless of experienced symptomatology, and has also been evidenced within ACT self-help literature (Trompetter, Lamers, Westerhof, Fledderus, & Bohlmeijer, 2017).



*Figure 12.* Keyes' Dual Continua Model of Mental Health

Whilst the presence of “flourishing” well-being does not mean absence of a mental illness (and vice-versa), there are increased rates of psychopathology within “languishing” individuals (Keyes et al., 2012). For example, the original study of 3032 US adults (Keyes, 2002) found that most individuals were moderately mentally healthy (56.6%; languishing = 12.1%; flourishing = 17.2%), and that the risk of a depressive symptomatology was two times more likely among “languishing” individuals than “moderately mentally healthy” individuals, and six times more likely among “languishing” individuals than “flourishing” individuals. Baseline levels of well-being have also been evidenced to explain 12-15% of variance in depression and anxiety symptoms within ACT self-help interventions (Trompetter et al., 2017). The close connection between the two

concepts (mental illness and well-being) means that clarity in their definitions is essential<sup>25</sup>.

Subjective well-being can be defined as an individual's own *perception and appraisal* of their life. Theoretically, well-being has derived from two perspectives (Ryan & Deci, 2001): hedonic (happiness, pleasure attainment, satisfaction) and eudemonic (meaning, self-realisation, psychological/social functioning). However, what constitutes well-being is still a source of debate, with most researchers now considering it to be a multi-dimensional construct, which has led to inconsistencies in its definition and measurement (Dodge, Daly, Huyton, & Sanders, 2012).

Such inconsistencies have also been observed within PMPO literature. The original definition of subjective well-being within the original PMPO article (Howard et al., 1993) could be argued to be too thin; whereby they discuss how early therapeutic processes (e.g., clarification of problems, installation of hope, etc.) lead to an enhancement of subjective well-being, yet a clear definition of well-being itself is not given. Their measurement strategy of using two multiple choice questions ("At the present time, how well do you feel that you are getting on emotionally and psychologically?" and "At the present time, how upset or distressed have you been feeling?") can also be critiqued for not fully capturing the full concept of well-being. More recent studies (e.g., Lutz et al., 2001; Sembill et al., 2017) could be considered to better capture both hedonic and eudemonic conceptualisations of well-being; however, there still appear to be inconsistencies, which is perhaps unsurprising given the continually evolving definition (Dodge et al., 2012).

Keyes (2002) argued that to fully capture the concept of subjective well-being, measures need to cover both hedonic (emotional well-being) and eudemonic (psychological and social well-being) factors; therefore, producing a three-factor model of subjective well-being (Table 20). The model has been widely supported in the literature (Gallagher, Lopez, & Preacher, 2009; Keyes et

---

<sup>25</sup> See Extended Paper 1.9. for clarification of mental illness/symptomatology

al., 2008; Lamers, Westerhof, Bohlmeijer, Ten Klooster, & Keyes, 2011; Robitschek & Keyes, 2009), with support for its use within ACT research (Trompetter et al., 2017), therefore, Keyes' definition of subjective well-being is used within this study.

Table 20

*Keyes' Three Components of Subjective Well-Being*

| Sub-Component            | Definition  |
|--------------------------|---|
| Emotional well-being     | The perceived presence of positive affect (e.g., feeling happy), the absence of negative affect (e.g., not feeling hopeless), and a perceived satisfaction with life. |
| Psychological well-being | The perceived presence of self-acceptance, personal growth, purpose in life, environmental mastery, autonomy, and positive relations with others.                     |
| Social well-being        | The perceived presence of social coherence, social actualisation, social integration and acceptance, and social contribution.   |

### 1.8. Quality-of-life in Relation to Life-Functioning and Well-being

Quality-of-life is a "person's subjective evaluation of the degree to which his or her most important needs, goals, and wishes have been fulfilled" (Frisch, 1998, p. 24), and is often measured as the gap between the importance an individual places on different aspects of their life, and how satisfied they are in those areas (Frisch, Cornell, Villanueva, & Retzlaff, 1992). Due to quality-of-life covering multiple life areas, such as work, family, and leisure activities, it is often misconceived as synonymous with life-functioning. However, quality-of-life is instead cognitively mediated, whereby it is not objective functional ability that is captured, but the appraisal an individual places on their current circumstance

(Frisch, 1998). For example, a depressed individual may function at work, but still feel that they are not satisfied with life.

Like subjective well-being, the concept of quality-of-life derives from the push away from pathology-oriented outcomes towards a focus on positive mental health (Frisch, 1998; Keyes, 2013). However, the terms are often used interchangeably (Frisch, 1998; McAlinden & Oei, 2006), and there is confusion as to whether well-being and quality-of-life are the same concept. The CASIO model of life satisfaction (Frisch, 2006) differentiates the two concepts. Likewise, well-being has been defined as equal to “happiness”, a subcomponent of quality-of-life, thereby indicating quality-of-life to be an umbrella term encompassing well-being (Camfield & Skevington, 2008; Ratzlaff et al., 2000). However, well-being has also been argued to be the over-arching concept encompassing quality-of-life (Diener, 2005; Dodge, Daly, Huyton, & Sanders, 2012). This confusion is likely due to both concepts developing over time, and new definitions of well-being suggest a convergence towards the international definition of quality-of-life (Camfield & Skevington, 2008; World Health Organisation, 1995). Camfield and Skevington (2008) addressed the issue directly, concluding that the two concepts *might* be synonymous, but that they themselves could not come to an agreement. Therefore, within this thesis, focus will be placed on subjective well-being as an individual concept, but previous findings of quality-of-life outcomes will not be discounted as a source of comparison.

## **1.9. Defining Symptomatology**

The definition of mental illness can be conceptualised as the presence of symptoms that are considered “abnormal”, and are usually diagnostically categorised (APA, 2013). It has been consistently argued that empirical difficulties in diagnostic classifications, namely overlapping constructs and heterogeneity in presentation, mean that focus should move away from diagnosis and instead focus on presenting symptoms and their formulation (Division of Clinical Psychology, 2013; Hayes, Wilson, Gifford, Follette, & et al,



1996; Osman et al., 2012). However, such an individualistic approach can lead to difficulties in the navigation of the evidence base, and consideration of how certain symptoms cluster together can better inform treatment pathways (Professional Practice Board, 2013).

Symptoms are characteristics that can present as psychological, behavioural, and/or physiological, and can be considered “abnormal” if they present at a level that impairs an individual’s life. Whilst the presence of symptoms is often considered “abnormal”, there is evidence that this is not the case. Lovibond and Lovibond (1995) found that the factor structure of the combined Beck Anxiety Inventory (BAI) and BDI (common measures of anxiety and depression) was maintained within non-clinical samples, thus supporting the argument that clinical levels of symptoms are just a more severe expression of “normal” human experience; a view also argued within the ACT model (Hayes, Luoma, Bond, Masuda, & Lillis, 2006).

This raises the question of what determines the *level* of symptom severity. Watson and Clark (1984) argued that a third construct, “negative affect”, is a dimension of mood-disposition, whereby individuals high in negative affect are more prone to clinical levels of symptoms, and that negative affect is the underlying factor to both depression and anxiety presentations. This was seen to explain the overlap between the constructs of depression and anxiety, as current measurement strategies were argued to be too heavily loaded on negative affect. Lovibond (1998), during development of the Depression, Anxiety, and Stress Scale (DASS), argued that negative affectivity is more than just a common factor, but is instead a separate dimension (expressed as “stress” within the DASS), which is supported through its predictive power of anxiety and depression (Henry & Crawford, 2005).

Due to its continued support within in the literature (Clara, Cox, & Enns, 2001; Davies, Caputi, Skarvelis, & Ronan, 2015; Osman et al., 2012), its applicability to the ACT model, and symptoms of depression, anxiety, and stress seen to broadly cover those experienced within CMDs, the three-factor structure of symptomatology is utilised within this study.

### **1.10. Defining Life-Functioning**

The functional status of an individual can be considered to cover both “functional capacity” (what an individual is able to do) and “functional performance” (what an individual does; Chang & Tamura, 2009). From a medical point of view, symptoms can impair an individual's functional capacity, thus limiting functional performance. Both the PMPO and ACT models support the view that how one experiences their symptoms needs to shift before functional capacity can be improved. However, the PMPO posits that symptoms need to reduce before functional capacity is re-established (Howard et al., 1993), whilst the ACT model has argued that it is not the symptoms that are impairing functional-capacity, but rather the individual's attempts to avoid them (i.e., experiential avoidance; Ciarrochi, Robb, & Godsell, 2005). Once functional capacity is re-established, the final stage of therapy can focus on challenging maladaptive ways of functioning, and encouraging the uptake of new and/or pre-existing roles, thus improving observed functional performance (coined “life-functioning” within the PMPO).

Life-functioning can be considered to cover multiple domains, with PMPO literature mostly covering the domains of work (job, housework, etc.) and interpersonal functioning (family, intimate, and social relationships). However, it could be argued that what is assessed as “functioning” could be culturally and individually specific (e.g., collectivistic cultures may be less likely to value autonomous functioning; Shavitt, Torelli, & Riemer, 2011; Tennant et al., 2004). Therefore, any adopted measurement strategy needs to cover the broad range of functioning areas, yet remain applicable to the client population.

### **1.11. Relational Frame Theory**

Developed from functional contextual<sup>26</sup> behavioural research, relational frame theory (RFT) is a theory of human language and cognition, and the foundation of the ACT model (Hayes, 2004; Hayes, Barnes-holmes, & Roche,

---

<sup>26</sup> See Extended Paper 2.1. for overview of functional contextualism

2002). According to RFT, human language and cognition is constructed from the ability to learn to relate events based upon arbitrary contextual cues. For example, a variety of animals may be able to learn non-arbitrary, concrete relations such as if one object looks bigger than another (e.g., a two pence piece is “bigger” than a five pence piece). However, humans are seemingly unique in their ability to transfer relational learning under contextual control and apply it to events that are not related in a concrete way, such as if one object has a bigger value than another (e.g., a five pence piece is “bigger” than a two pence piece). Such abstract relations are often “arbitrary” in the sense that they are determined by social whim or convention (e.g., the values of the coins are socially determined).

This version of relational learning consists of three main properties: mutual entailment, combinatorial entailment, and transformation of stimulus functional properties (Hayes, 2004). Detailed in Table 21, the combination of the three is deemed a “relational frame”; the core of human language and cognition.

Table 21

*The Three Components of a Relational Frame*

| Component  | Explanation   | Example   |
|--|---|---|
| Mutual Entailment                                | If A relates to B in a certain way, then the relationship of B to A can be determined.                                      | If one learns that eating a jalapeño pepper causes their mouth to burn, they can derive that a burning mouth is the effect of eating a jalapeño pepper.   |
| Combinatorial Entailment                         | If A relates to B in a certain way, and B relates to C in a certain way, then the relationship of A to C can be determined. | If one learns that a bell pepper is larger than a jalapeño pepper, and a jalapeño pepper is larger than a habaneros pepper, they can derive that a bell pepper is larger than a habaneros pepper.   |
| Transformation of Stimulus Functional Properties | Such relational responses enable a transformation of stimulus functions between all related stimuli.                        | If one learnt that smaller peppers are more potent than larger peppers, they can derive that eating a bell pepper will be less painful than a jalapeño pepper, and eating a habaneros pepper more painful. Therefore, one might avoid a habaneros pepper without ever having direct experience of it. |

*Note.* Derivation of relations are context specific, e.g., the relation of A to B may alter depending on context.

Language and relational frames serve to help humans problem solve, make plans, and survive. However, relational frames can also limit human behaviour and prevent experiential learning.

This is clinically relevant because the functions of one event can transfer to other events, cause distress, and produce avoidance of potentially corrective experiences. For example, a child may learn that a certain food is called a “tomato”. Whilst eating a tomato they may choke, leading them to feel sick and anxious, and avoid eating the rest of the tomato. The next day, the mother tells the child “I have made tomato salad for lunch”, and the child feels sick and

anxious and refuses to go for lunch. The words “I have made tomato salad for lunch” have never been heard by the child whilst feeling sick and anxious, however, the words have now been transformed in their function (i.e., they now function to make them feel sick, anxious, and avoidant). In the future it may also transform the function of related stimuli, for example they might learn that a “tomato” is a “fruit”, and so other fruit may also start to function to produce sickness, anxiety, and avoidance. Hence, these relational frames can cause psychological distress and prevent corrective experiences; therefore, highlighting the importance of considering cognition when understanding human behaviour (Hayes et al., 2004).

From a RFT/ACT perspective, distress is a result of when relational frames prevent an individual from behaving in line with their values, even when it is unhelpful or distressing (Hayes, 2004). This is termed “psychological inflexibility”, which is composed of experiential avoidance and cognitive fusion.

#### **1.11.1. Experiential Avoidance.**

Experiential avoidance is the unwillingness to experience aversive private events (thoughts, emotions, physical sensations), and actions taken to alter their form or frequency even if it results in psychological distress (Hayes et al., 1996). Avoidant actions are detailed in the literature to include thought suppression, distraction, expressive suppression, avoidance coping, wishful thinking, and cognitive reappraisal (Cutuli, 2014; Li et al., 2017; Magee, Harden, & Teachman, 2012; Penley, Tomaka, & Wiebe, 2002). As experiential avoidance covers a wide range of avoidance strategies, it is unclear if it is one overarching construct or multifaceted (e.g., cognitive, affective, and behavioural), and if outcomes are impacted by whether actions taken are voluntary or involuntary (Chawla & Ostafin, 2007). However, research supports the theory that experiential avoidance is often unhelpful, with thought suppression leading to a paradoxical increase in their occurrence (Abramowitz, Tolin, & Street, 2001; Magee et al., 2012), affective suppression leading to poorer cognitive, psychological, social, and physical health outcomes (Butler et

al., 2003; Szczygieł & Maruszewski, 2015; Tackman & Srivastava, 2016), and behavioural avoidance leading to negative psychological outcomes (Holahan, Holahan, Moos, Brennan, & Schutte, 2005; Morris, Moghaddam, Tickle, & Biswas, 2017; Penley et al., 2002).

Research into the relationship between experiential avoidance and psychopathology has indicated that experiential avoidance can predict severity of symptoms, mediate the association between trauma and distress, and is a causal factor for CMDs (Chawla & Ostafin, 2007; Spinhoven, Drost, de Rooij, van Hemert, & Penninx, 2014; Tull, Gratz, Salters, & Roemer, 2004). The nature of this relationship is thought to follow several potential pathways (Hayes et al., 1996), such as (a) thinking “I shouldn’t think about ‘X’” is in its very nature related to ‘X’, therefore, making ‘X’ more cognitively available, (b) private experiences are classically conditioned to neural pathways not amenable to verbal control, therefore, causing distress when they cannot be altered, (c) affective strategies may impair others’ abilities to recognise and respond to the emotional needs of the individual, and (d) behavioural strategies may restrict an individual’s life and the things they feel able to do (e.g., avoiding social situations might limit someone to remain in their house full-time). From an RFT perspective, avoidance often leads to the strengthening of the relational frame between the avoidant behaviour and the very thing that the individual is trying to avoid, therefore, leading to an increase in distress.

#### **1.11.2. Cognitive Fusion.**

Cognitive fusion is when an individual is dominated by verbal rules and evaluations of events, therefore, giving their thoughts control over their behaviour. For example, thoughts such as “I am too anxious to go to the party” will lead to an individual avoiding the party. This is problematic, as an individual who acts in accordance with their cognitions, rather than viewing them as a cognitive process in the present, is more likely to act in a way that strengthens and confirms the underlying relational frames (Hayes, 2004), and likewise denies them any corrective experience.

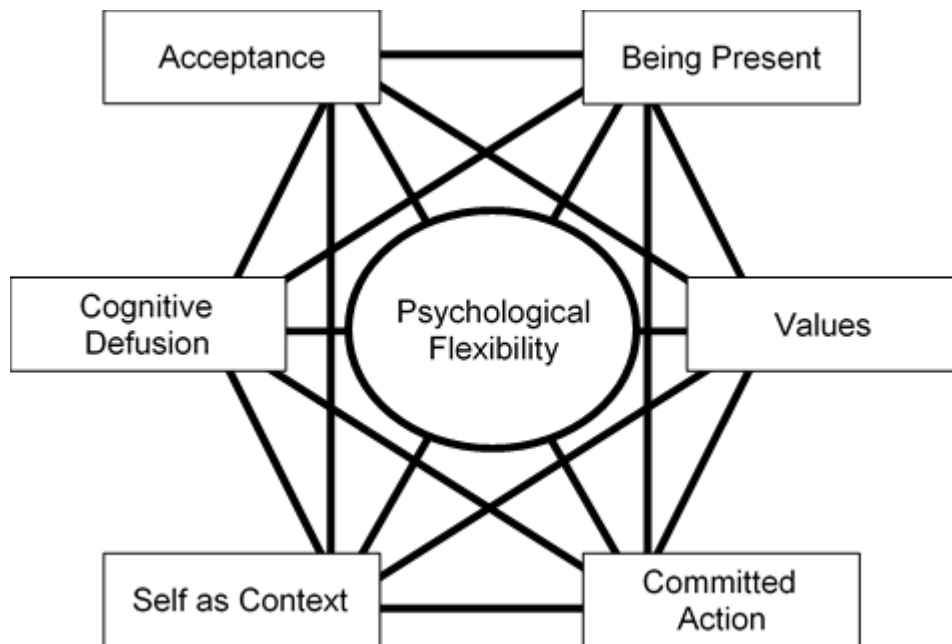
The notion of thoughts influencing behaviour is not new, and is a key component of CBT models of psychopathology, with “maladaptive” thoughts being targeted for modification during therapy (Beck, 1976; Clark & Wells, 1995; Wells, 1997). However, as discussed in “Experiential Avoidance” (Extended Paper 1.11.1.), ACT would posit that such interventions may inadvertently cause greater distress, as the more control an individual tries to assert over a thought, the more fused they become to it (Hayes, 2004). Instead, ACT would support an individual to “defuse” from their cognitions, to allow them to live in line with their values instead. Cognitive fusion is closely linked to experiential avoidance, and as such they both interact to cause distress and psychopathology relating to CMDs (Bardeen & Fergus, 2016; Donald, Atkins, Parker, Christie, & Guo, 2017).

#### **1.12. Transdiagnostic Application of ACT and the Core Processes**

The theory of psychological inflexibility (experiential avoidance and cognitive fusion) can be transdiagnostically applied across the range of CMDs; whereby, an individual wishes to avoid an internal experience that they believe to be abnormal, adopts avoidant strategies that paradoxically serve to increase distress (which is negatively reinforced due to temporary relief), and become fused with their appraisals of events to the extent that they act in accordance with their cognitions rather than their values. Continuation of the above can restrict an individual’s behavioural repertoire, thus reducing subjective well-being and life-functioning, and exacerbating symptomatology linked to the development of CMDs (Hayes, 2004; Hayes et al., 2006).

Therefore, ACT aims to increase psychological flexibility (as opposed to psychological inflexibility), to give an individual the ability to contact the present moment, distance themselves from their cognitions, and to act in line with their values. The goal of ACT is not to reduce symptomatology, but rather increase willingness to experience such internal experiences in aid of enhancing pursuit of valued actions. The reduction of symptomatology is instead a “secondary effect”, resulting from cessation of the avoidance cycle (Hayes et al., 2006). The

six core processes of ACT (Figure 13; Hayes, Strosahl, & Wilson, 1999) are designed to enhance psychological flexibility.



*Figure 13. The ACT Hexaflex of Psychological Flexibility*

#### **1.12.1. Acceptance.**

An alternative to experiential avoidance, acceptance is the active embrace of private events (thoughts, emotions, physical sensations) without attempting to alter their frequency or form. Individuals are encouraged to accept their internal experiences, such as those relating to anxiety or low mood, fully and without defence. Acceptance is not itself an outcome, but rather a method implemented to allow the individual to increase their values-based actions.

#### **1.12.2. Cognitive Defusion.**

An alternative to cognitive fusion, cognitive defusion is where an individual can distance themselves from their thoughts and consider them as cognitive processes in the present (e.g., "I am having the thought 'I am no



good”), rather than treating the thoughts as what they refer to (e.g., “I am no good”). Therefore, rather than attempting to alter the cognition’s form or frequency, ACT focuses on changing how an individual relates to their thoughts by creating contexts in which the unhelpful function of the cognition is diminished. This is achieved in a multitude of ways, such as externalisation (giving the thought shape, size, colour, etc.), thanking the mind for giving the thought, and repetition (until only sound remains); and serves to decrease believability of, and/or attachment to, private events.

#### **1.12.3. Being Present.**

Being present involves being in contact with psychological and environmental events as they occur. Individuals are encouraged to witness their experiences without judgement, so that they are better able to adapt their behaviour in line with the values they hold. This is achieved through mindfulness (being consciously aware) and the practice of using language as a tool to describe events, rather than judge them.

#### **1.12.4. Self as Context.**

Self as context is the ability to differentiate the sense of self as differing from that of the verbal mind (i.e., the thought versus the thinker). The individual is encouraged to recognise this distinction through mindfulness exercises, metaphors, and experiential processes; thus, allowing them to observe internal experiences without attachment to them, and develop defusion and acceptance.

#### **1.12.5. Values.**

Values are the qualities of actions taken moment by moment that work towards a preferred life direction. For example, individuals are encouraged to consider what they value in different domains of life (e.g. career, community, health), whilst ensuring that choices are not selected based upon avoidance,

fusion, or social compliance. Values differ from goals, in that they cannot be obtained but are instead the direction taken.

#### **1.12.6. Committed Action.**

Committed action is where an individual opts to act in accordance with their chosen values. Individuals are encouraged to develop short-, medium-, and long-term goals that help them live more in line with their values. Committed action is further encouraged through other behavioural techniques such as skills acquisition, exposure, and homework, and the potential psychological barriers are addressed through the other ACT processes as they occur. Taken together, all six core processes serve to enhance the individual's quality-of-life, thus alleviating subjective distress.

#### **1.13. Evidence Base of ACT Self-Help**

Self-help interventions range from self-administered to therapist-guided (Newman, Erickson, Przeworski, & Dzus, 2003), and involve the provision of materials that “guide and encourage the patient to make changes... rather than just provide information” (Anderson et al., 2005, p. 387). Self-help interventions have the benefit of increasing access to client populations who might otherwise struggle to attend face-to-face therapy (e.g., social anxiety disorder, Nordgreen et al., 2012), and can prove cost effective for services (Bower, Richards, & Lovell, 2001). However, variations in how self-help interventions are defined and/or implemented means that research results can be difficult to consolidate and generalise.

With the current climate of stepped-care, and increased provision of low-level interventions (Department of Health, 2009), the evidence base for self-help interventions is increasingly growing. Systematic reviews indicate that self-help has efficacy in CMD presentations, with improved outcomes when in guided format, and levels of efficacy equitable to face-to-face therapy (Cuijpers, Donker, van Straten, Li, & Andersson, 2010; Hof, Cuijpers, & Stein, 2009).

However, literature has seemingly remained focused on CBT self-help interventions, with minimal research into ACT self-help in comparison.

Currently, two systematic reviews relating to ACT self-help interventions have been conducted. An initial review by Cavanagh, Strauss, Forder, and Jones (2014) looked at fourteen RCTs of mindfulness and acceptance based interventions within guided and non-guided self-help formats (seven ACT-based, four mindfulness-based, and four multi-component). Findings indicated an average attrition rate of 37% (range: 0%-69%), with small to medium effect sizes in anxiety, depression, and acceptance/mindfulness outcomes. However, the generalisability of such findings to ACT self-help interventions is reduced due to acceptance and mindfulness only making up two of the six core processes, and the inclusion of multi-component interventions making it difficult to differentiate the extent that ACT specific components played in producing outcomes.

A more recent review shifted focus to only include guided and non-guided self-help interventions that included all six ACT processes, and were not multi-component (French, Golijani-Moghaddam, & Schröder, 2017). Thirteen RCTs were identified, with an average attrition rate of 24.6% (range: 5.7%-55.9%), and small effect sizes in anxiety, depression, and psychological flexibility, that increased to medium effect sizes when analysis was limited to guided interventions ( $n = 5$ ). Similarly, average effect sizes were seen to increase when limiting analysis to book-based interventions ( $n = 6$ ), compared to those that were computer-based. However, ACT does not purport to target symptomatology and, whilst psychological flexibility was considered, the review can be critiqued for not considering other outcomes such as well-being and life-functioning.

As discussed in the journal paper, application of ACT self-help literature to the phases of the PMPO indicate support for ACT self-help's efficacy in improving well-being and quality-of-life, however, not all RCTs have found significant levels of improvement (Buhrman et al., 2013; Levin, Hayes, Pistorello, & Seeley, 2016; Pots, Fledderus, et al., 2016; Trompetter et al.,

2015). Closer inspection of study characteristics indicates that the levels of guidance and format of delivery may have impacted the results (guided/book formats more likely to show significance), as supported by findings in other outcomes (French et al., 2017); however, what is of note is that three of these studies found significant improvements in measures of anxiety and depression despite not finding significant improvement in well-being/quality-of-life (Buhrman et al., 2013; Pots, Fledderus, et al., 2016; Trompetter et al., 2015). Whilst this may appear counter-intuitive to the PMPO, it may be that small improvements in well-being are sufficient to trigger large improvements in symptomatology and, as they are group-based RCT designs, the temporal patterns of change are unable to be observed. A post-hoc analysis conducted by Pots, Trompetter, Schreurs, and Bohlmeijer (2016) did indicate that baseline levels of well-being moderated later outcomes, however, the picture remains unclear.

Whilst a distinction can be made between well-being/quality-of-life and life-functioning in relation to patterns of living/behaving, the latter does not necessarily appear within ACT self-help literature. Functioning has been assessed using measures that are context specific to the participant group, such as the functional impact of pain or chronic fatigue, and levels of physical activity/functioning (e.g., Fledderus, Bohlmeijer, Pieterse, & Schreurs, 2012; Moffitt & Mohr, 2015; Trompetter et al., 2015); however, broader life-functioning as defined by the PMPO is not apparent. This is perhaps surprising due to ACT's focus on valued living and committed action, as you would expect a change in functional activity (e.g., "I feel depressed, but I am going to do the housework anyway"). It may reflect a conscious choice to instead focus on whether an individual *feels* their life is valuable (regardless of how that might functionally appear); however, with levels of life-functioning improving other outcomes (Agosti & Stewart, 1998), and presenting as a better predictor of relapse than self-esteem, social support, attributional style, genetic vulnerability, or number of previous episodes (Staner et al., 1997), this may represent a gap in current measurement strategy.

The above indicates that ACT self-help interventions are effective in improving psychological flexibility, well-being, and symptomatology outcomes,

which are enhanced when the intervention is given in guided and/or book format. However, outcomes relating specifically to life-functioning are not necessarily apparent, and there is no clear indication of the temporal ordering of processes in relation to the PMPO. Taken together, this provides a suitable rationale for more in-depth consideration of processes within a guided ACT self-help intervention.

#### **1.14. Research Rationale and Clinical Relevance**

The extent of step-4 waiting lists, and the personal and societal impact of not providing timely intervention for individuals with CMDs, highlights the clinical relevance of investigating a low-level waiting list intervention within this population. Further to this, the heterogeneous presentation within Step-4 populations calls for investigation of interventions that can be transdiagnostically applied (such as ACT).

Whilst the efficacy of guided ACT self-help interventions has been established, there is reduced evidence regarding the processes of change that occur during treatment. This is clinically relevant because understanding the phases of change that an individual is likely to experience during therapy can inform treatment progression (e.g., if life-functioning is unlikely to improve until improvements in well-being and symptomatology are established, then a clinician may choose to not target patterns of functioning until the individual has experienced shifts in the first two areas). The PMPO model has been evidenced to explain the processes of change during face-to-face psychotherapy, but it is unclear if this is applicable within manualised self-help formats, and how it relates to the ACT model of psychological flexibility. Further to this, existing ACT self-help literature is limited in its investigation of life-functioning (the third stage of the PMPO), and the group based RCT designs make temporal patterns of change difficult to observe. As such, there is rationale for single-case research designs, whereby more in-depth observations and more regular outcomes can be taken to better observe temporal effects.

## 2. Extended Methods

### 2.1. Epistemology

The present study follows the epistemological position of functional contextualism (Gifford & Hayes, 1999). This position strongly links to RFT and ACT (Hayes, 1993), radical behaviourism (Skinner, 1945), and modern behavioural analysis (Fox, 2008). Functional contextualism posits that all behaviours (including thoughts, feelings, and overt actions) are functional, and that it is the functional context (both historical and situational) in which a behaviour occurs that determines whether it is considered “helpful” or “unhelpful” (Hayes, Strosahl, & Wilson, 2012). For example, the thought “I am unfit” may serve a function of motivating oneself to go to the gym, or alternatively function as a reason to not attend a sports event. It is the function of the thought that determines the subsequent emotions and actions, not the verbal content. The thought itself is neither rational nor irrational, and does not itself cause a reaction (Ciarrochi et al., 2005; Hayes, 2004).

Functional contextualism’s main goal is to *predict and influence* events with precision, depth, and scope (Fox, 2006). The approach rejects ontology in the sense that objective “truth” is always going to be limited by the context of our analysis (Hayes, 2004). Instead, it strongly adheres to the practical truth criterion, where rules and theories that do not contribute to the goals of prediction and influence are ultimately ignored or rejected (Fox, 2006). As such, the “truth” could be considered the degree to which a contextual factor predicts and influences the outcome of interest (Hayes, 2004). From this position, all behaviours (including thoughts, feelings, and overt actions) are viewed as dependent variables (DVs) which cannot be directly manipulated. Therefore, to predict and influence them, it is the manipulation of functional contextual variables that needs to be the focus of analysis (Biglan & Hayes, 1996; Hayes, 2016). This can improve understanding of the functional relationship between context and behavioural outcomes (Fox, 2008), and contribute to the development of theories that are better able to be applied to practical action (Hayes et al., 2012).

The approach lends itself to quantitative, experimental techniques (Fox, 2008; Gifford & Hayes, 1999), such as group comparisons and single-case experimental designs (SCEDs), where an independent variable (IV) is manipulated in a controlled manner to determine whether it has a direct causal or functional impact on the DV (J. D. Smith, 2012). Other approaches, such as correlational or descriptive methodologies, are less able to isolate the causal contextual factors, and qualitative designs are considered less effective at providing the precision required (Fox, 2008). Traditionally used within behavioural and contextual science, SCEDs are preferable when investigating the processes behind psychological interventions (J. D. Smith, 2012), and fit well with the functional contextualist position due to its intensive exploration of the links between treatment models, processes of change, and outcomes (Hayes, 2016; Vilardaga, Bricker, & McDonell, 2014). As functional contextualism argues that our analysis is vulnerable to contextual influences, reductionism is resisted (Hayes, 2004). Therefore, triangulation with other sources of information (e.g., change interviews, Elliott, 2010) can further inform context and strengthen analytic conclusions (Morse, 1991).

## **2.2. Single-Case Experimental Design**

SCEDs are an alternative to group comparison designs such as RCTs (Barlow, Nock, & Hersen, 2008), and have the advantage of being able to focus on individual performance outcomes rather than that of the group (Rassafiani & Sahaf, 2010). The SCED's experimental strategy, the systematic manipulation of IVs, means that conclusions drawn are less susceptible to misattribution of cause and effect (Rassafiani & Sahaf, 2010). A SCED's capacity to track detailed individual outcomes at multiple time-points means that it is apt for meeting the aims of this study.

Within SCEDs, causal relationships are typically established through the application and removal of the IV via an "A-B-A" design (Barlow et al., 2008). This involves a non-treatment baseline phase (A), followed by a treatment phase (B), followed by another non-treatment phase where the treatment is

withdrawn (A). If the DV under observation changes during the treatment phase (B) but then returns to baseline levels following the treatment's withdrawal, a causal relationship can be inferred. However, application to psychotherapeutic treatments can be limited as therapy cannot be "unlearned", and removal of an effective treatment could be unethical (Rassafiani & Sahaf, 2010).

Such limitations are ameliorated through the use of "A-B" designs, which are recommended for the analysis of newly developed psychotherapeutic interventions (Rassafiani & Sahaf, 2010). Like "A-B-A" designs, participants have a non-treatment baseline phase (A), however, allocated baselines are of varying length with different start dates. This helps minimise misattribution of outcomes that might be caused by confounding variables such as the passage of time or notable historical events (Barlow et al., 2008). Following the establishment of a stable baseline, participants partake in a treatment phase (B), but a second non-treatment phase is not included. Participants become their own controls with repeated measurements taken during both the baseline (A) and treatment (B) phases, (Barker, Pistrang, & Elliott, 2016). Therefore, changes in the DV during the treatment phase (B) can be attributed to the treatment, particularly if observed across multiple participants.

The A-B multiple-baseline design was deemed suitable for this study due to (a) the aim to observe the effects of an ACT intervention on the development and temporal relation of multiple outcomes over time, (b) individuals being available to commence participation at differing times, and (c) the intervention being unable to be removed. As the intervention was divided into ten weeks, the treatment phase (B) was split into ten phases, thus allowing further analysis into the impact of each week's content on observed outcomes (Figure 14).

Prior to the baseline period commencing, outcome measures were administered within a pre-intervention meeting with the researcher. This provided initial scores for later reliable change analyses, and gave participants an opportunity to familiarise themselves with the measures and ask questions. To minimise the impact of expectation on subjective well-being (Howard et al., 1993), they were administered prior to the participant knowing their baseline



length. Measures were also taken at a one-week follow-up to allow for temporal delays in outcomes, however, were not extended further due to the time limitations of the waiting list.

|                             |                                 |   |  |  |   |  |
|-----------------------------|---------------------------------|---|--|--|---|--|
| Pre-Intervention Assessment | <b>(A)<br/>Baseline Phase</b>   | <b>(B)<br/>Intervention Phase</b><br>Introduction and Chapter One | <b>(B)<br/>Intervention Phase</b><br>Chapter Two | <b>(B)<br/>Intervention Phase</b><br>Chapters Three and Four | <b>(B)<br/>Intervention Phase</b><br>Chapter Five |  |
|                             | Weeks A, B, C, ... <sup>a</sup> | Week 1  | Week 2   | Week 3   | Week 4  |  |

|   |  |   |  |   |  |                             |
|---|--|---|--|---|--|-----------------------------|
| <b>(B)<br/>Intervention Phase</b><br>Chapters Six and Seven | <b>(B)<br/>Intervention Phase</b><br>Chapter Eight | <b>(B)<br/>Intervention Phase</b><br>Chapter Nine | <b>(B)<br/>Intervention Phase</b><br>Chapter Ten | <b>(B)<br/>Intervention Phase</b><br>Chapters Eleven and Twelve | <b>(B)<br/>Intervention Phase</b><br>Chapter Thirteen and Conclusion | Post-Intervention follow-up |
| Week 5  | Week 6   | Week 7  | Week 8   | Week 9  | Week 10  |                             |

<sup>a</sup> Length of baseline is variable

*Figure 14. Research Design*

### 2.3. Ethical Considerations

The British Psychology Society's (BPS) Code of Human Research Ethics (BPS, 2010) was used to inform the study's procedural design. Ethical approval was gained from the University of Lincoln's School of Psychology Research Ethics Committee, the Yorkshire and the Humber – Leeds West Research Ethics Committee (Ref: 16/YH/0508), and LPFT's Health Research Authority. A minor amendment to protocol was made prior to the second phase of recruitment due to the extension of the recruitment area to include LPFT-West, of which all three ethical committees granted approval. Appendix B details confirmation of approvals.

To protect the confidentiality of eligible individuals on the waiting lists, the service made initial contact via telephone. A brief overview of the study was

given and individuals who expressed interest were invited to an assessment with the service where the information sheet (Appendix C) was given along with an opportunity to ask further questions. As per service protocol, a risk assessment alongside the CORE-OM (Evans et al., 2000) was completed, with the aim of identifying and protecting individuals whose risk factors had increased since the initial referral assessment which might negate their eligibility for the study. The Mental Health Continuum – Short Form (MHC-SF; Keyes, 2002) was then administered to check the final eligibility criterion.

If individuals were still eligible and willing to take part, their verbal consent was recorded in the clinical notes and the lead researcher informed. They were then invited to a meeting later that week with the lead researcher. During this meeting, the information sheet and consent form (Appendix D) was gone through with the individual, ensuring that they understood the nature of the research and the commitment required. Individuals were informed of the experimental nature of the intervention, and the potential costs and benefits. They were also made aware that their GP would be sent a letter informing them of their involvement in the study at both the beginning and end of their involvement. If informed consent was given, both the individual and the researcher signed the consent form. All remaining outcome measures were then administered, demographic data collected (Appendix E), and their GP informed of involvement (Appendix F). Items included within the demographic data were selected to enable inferences about the representativeness and comparability of the participants to other samples, and provide greater context to the findings. However, items were limited to avoid participant fatigue and protect anonymity in the write up.

All participants were made aware that participation in the study was voluntary and did not impact their position on the waiting list for future therapy. Following signing consent, participants commenced the baseline phase of the procedure. Participants were aware that they had a “cool down period” of two weeks where they could have all data about them fully withdrawn from the study. Following this, any data collected prior to a withdrawal would be retained within the findings. Participants could withdraw at any time, without giving a

reason. Withdrawal options included: (a) withdraw from the research component but continue with the intervention, (b) withdraw from both the research and intervention but receive the remainder of the book, or (c) full withdrawal. Those that withdrew from the study were invited to an interview with the lead researcher to discuss their experiences of the intervention, however, it was made clear that this could be declined. To avoid inducing participants to partake in the research for inappropriate reasons, they were not paid for their involvement, but compensation for travel costs was offered at 24p per mile.

To maintain confidentiality, participants were assigned numbers that were used to keep track of their data during collection and analysis. Participants were prompted via email to use their participant number each time when completing outcome measures online or via post. Posted outcome measures were returned in envelopes addressed to the University of Lincoln Doctorate of Clinical Psychology administration team where they were placed in locked storage. Participants were aware that the results of their outcome measures would not be available to the service and, therefore, would not contribute to decisions made about future therapy.

Change interviews were recorded onto a dictaphone and transferred to an encrypted, password-memory stick provided by LPFT to ensure compliance with their data protection policies. Transcription was completed by an independent transcriber who had signed a confidentiality agreement. Data files were encrypted and password protected prior to being securely transferred online.

All electronic data collected over the course of the research was stored on the encrypted, password-protected memory-stick. This was kept with the lead researcher as per LPFT policy, before being stored in a locked safe at the University of Lincoln only accessible to the research team and administration staff. Any paper-based data was also stored within this safe. For audit reasons, data remained stored for seven years. All participants were given an option to receive a written summary of research findings, alongside the option to consent to contact for future follow-up research.

## **2.4. Area of Recruitment**

Participants were recruited from the Adult Psychology and Psychotherapy Service (Step-4) across Lincolnshire Partnership NHS Foundation Trust – East and West. This covered five bases: Lincoln, Gainsborough, Louth, Boston, and Skegness. The service was chosen due to (a) its difficulties in providing qualified clinicians to meet the demands of the waiting list at the time of the study's commencement, therefore, reflecting the clinical needs discussed in the introduction, (b) its ability to provide Assistant Psychologists (APs) to deliver the intervention alongside administrative support, and (c) logistical reasons relating to the location of the lead researcher.

## **2.5. Inclusion and Exclusion Criteria.**

Assessment of eligibility was operationalised through set inclusion and exclusion criteria that were selected to ensure participant suitability. The rationales for these criteria are detailed in Table 22.

Table 22

*Rationale for Inclusion and Exclusion Criteria*

| Criteria  | Rationale   |
|---|---|
| <b>Inclusion Criteria</b>   |   |
| Deemed suitable for self-help intervention by qualified Clinical Psychologist | <ul style="list-style-type: none"> <li>• Standard service protocol</li> </ul>   |
| Minimum of four months remaining on waiting list                              | <ul style="list-style-type: none"> <li>• To ensure treatment as usual was not delayed by participation</li> </ul>   |
| Written and verbal English skills   | <ul style="list-style-type: none"> <li>• Book and phone calls administered in English</li> <li>• Unable to fund translation of intervention components</li> <li>• Unable to fund translation of book into verbal/visual format for illiterate individuals</li> </ul>  |
| Ability to give informed consent  | <ul style="list-style-type: none"> <li>• To ensure individual has capacity to decide on their involvement in the study</li> </ul>   |
| Total score on MHC-SF $\leq 1.63$ categorised as "languishing"                | <ul style="list-style-type: none"> <li>• To ensure participants were representative of a clinical population</li> <li>• MHC-SF (Keyes, 2002) chosen due to well-being being the first component to change in the model of psychotherapeutic change (Howard et al., 1993)</li> <li>• Cut off value of 1.63 falls two SDs (0.88) below the mean score of non-clinical populations (3.24; Keyes et al., 2012)</li> </ul> |
| <b>Exclusion Criteria</b>   |   |
| Previous experience of ACT  | <ul style="list-style-type: none"> <li>• To ensure intervention was novel to better witness its impact</li> </ul>   |
| Ongoing input from another mental health provider                             | <ul style="list-style-type: none"> <li>• To improve isolation of ACT intervention as the main independent variable</li> </ul>   |

*Note.* MHC-SF = Mental Health Continuum – Short Form; ACT = Acceptance and Commitment Therapy.

## **2.6. Phases of Recruitment**

Identification of eligible participants was conducted by the service via review of their waiting lists. Initial recruitment was across the three areas covered by LPFT-East: Louth, Boston, and Skegness, and application of the inclusion/exclusion criteria identified 11 eligible individuals. To ensure participant selection was randomised, yet remained representative of the client groups across the three areas, a stratified randomisation approach was adopted. Eligible participants were grouped according to their location and each assigned a number. A random number generator was then used three times by the second author (blind to the number allocations) to determine order of approach in each of the three areas. The aim was to recruit two participants per area. By the end of this first recruitment phase two participants were recruited from Louth, with one dropping out prior to commencing the intervention.

Due to low uptake, a second round of recruitment was conducted that included LPFT-West: Lincoln and Grantham (following ethical approval of amendment). The additional waiting lists were reviewed, including a re-review of the previous waiting lists for individuals newly referred to the service since the first round of recruitment. A total of 16 individuals were identified across two areas: Louth and Lincoln. Again, a stratified randomisation approach was adopted to the order of recruitment, with the aim of recruiting two individuals from Louth and three individuals from Lincoln, which was achieved. Figure 15 further details the above two phases of recruitment and how the reported participant number was reached.

As per Figure 16, participant screening, phone contact, and initial assessment was completed by the service. Pre-intervention meetings, to confirm eligibility and consent, were then conducted by the lead researcher at the service location (Figure 17).

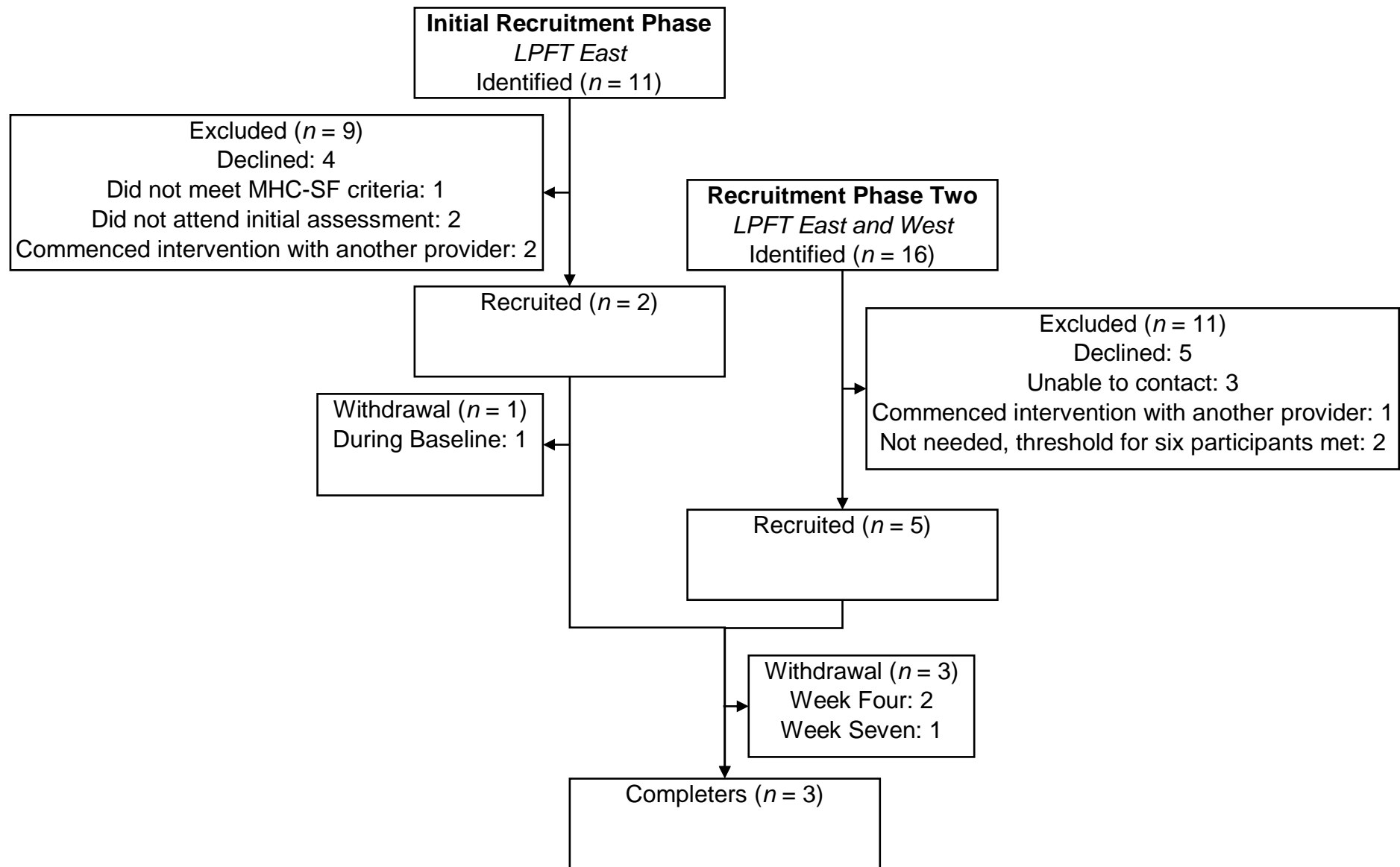
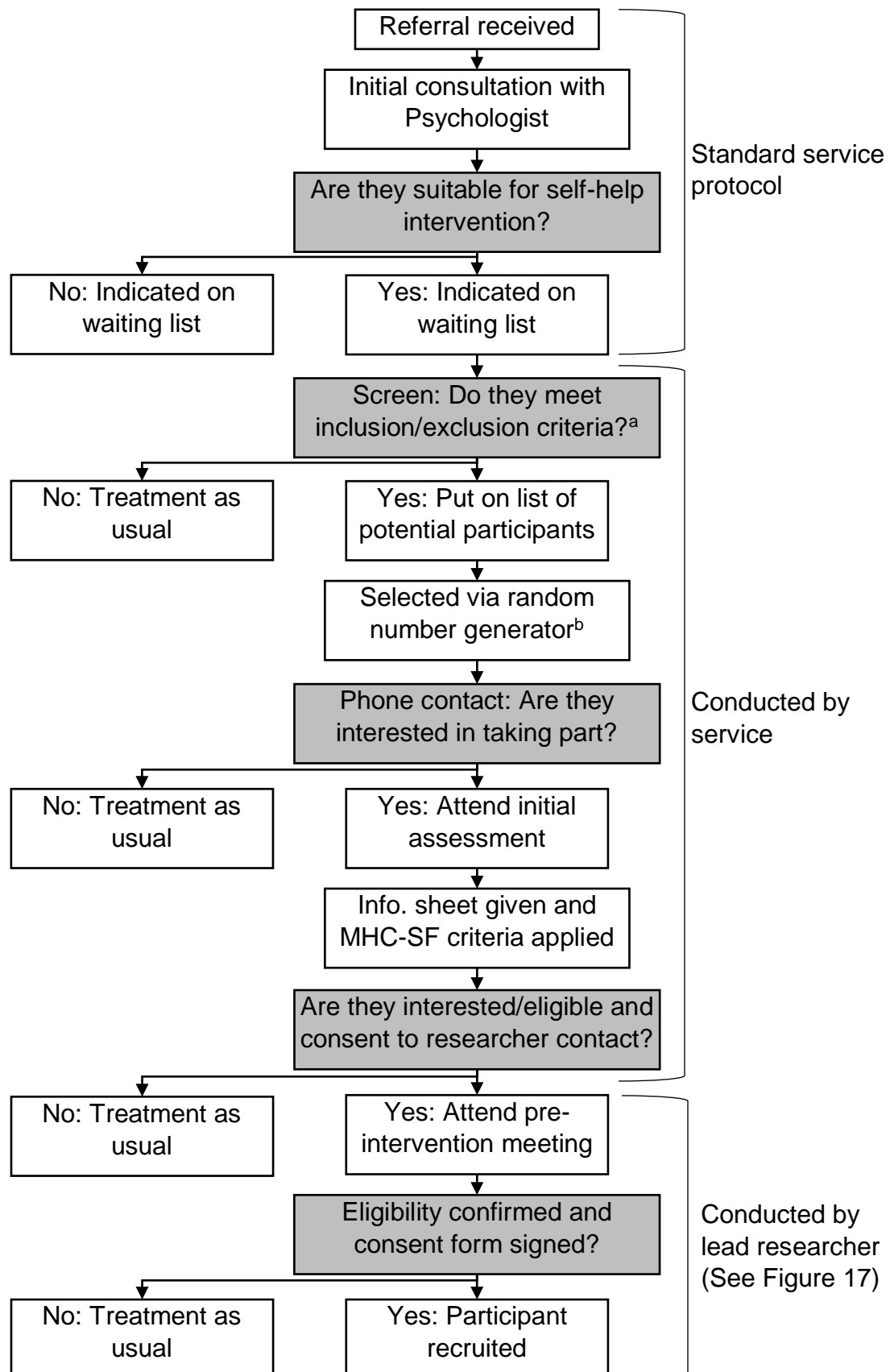


Figure 15: Recruitment Flow-Chart

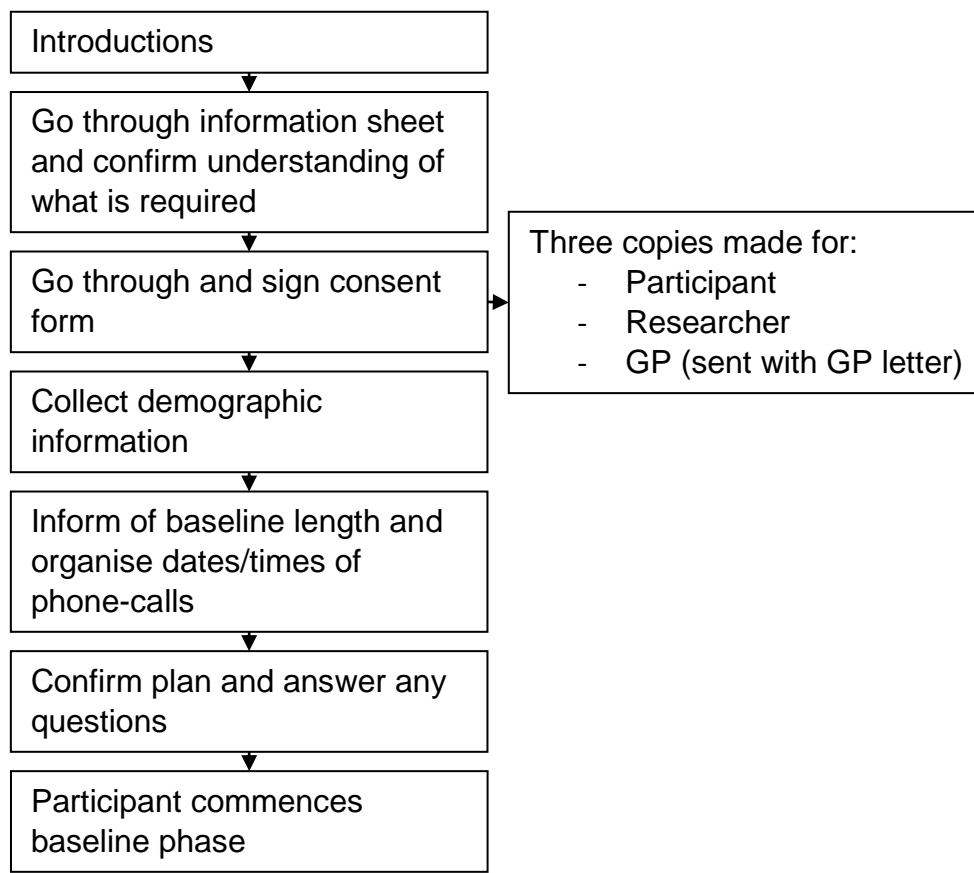


a = MHC-SF criteria unable to be applied at this time-point

b = Randomisation conducted by second author "blind" to participants

Figure 16. Participant Recruitment Process





*Figure 17. Pre-Intervention Meeting*

## **2.7. Sample Size**

The high level of detail achieved by SCEDs means they typically require a small sample size. However, unlike single-subject research designs, multiple subjects are used to assess the replicability of the findings (Backman, Harris, Chisholm, & Monette, 1997). A minimum of three replications is recommended to provide sufficient data (Kratochwill et al., 2010), however, recruitment of six participants is advised to protect against attrition (J. D. Smith, 2012). Protecting against attrition was apt in the present study due to the intense nature of the design, even though participants were informed of the requirements prior to recruitment. A recent systematic literature review of ACT self-help interventions (French et al., 2017) indicated three-quarters of participants completed the interventions (mean = 75.4%, range: 44.1%-86.0%), with higher completion rates when the intervention included guided support (mean = 80.1%, range:

50%-94.3%). Therefore, for this study, recruiting until six individuals commenced the intervention was deemed sufficient within the time frame available.

## **2.8. Book choice and Amendments**

To meet the research aims, an ACT self-help book was required that was written in English with applicability to a wide range of mental health presentations. *“Get Out of your Mind and into your Life”* (Hayes & Smith, 2005) was chosen as it met the above criteria, and its presence within ACT self-help literature means that the results of this study can be more easily comparable to previous findings (French et al., 2017). Appendix G details confirmation of approval for its use.

The American origins of the book meant that some components were less relatable to a non-American audience. For example, it referenced the supermarket chain “7-11” (Hayes & Smith, 2005, p.127) which was not prevalent in the UK. Whilst a British book, such as *“Get the Life You Want”* (Jackson-Brown, 2013), might circumvent these difficulties, no literature exists evidencing their efficacy (French et al., 2017), thus limiting the generalisability of the conclusions that could be drawn. Therefore, it was deemed more suitable to use *“Get Out of your Mind and into your Life”* (Hayes & Smith, 2005) with minor amendments to the language.

The original book consists of an introduction, 13 chapters, and a conclusion (total = 15). To allow further analysis into the impact of each week’s content on the subscales of psychological flexibility, and ensure participants did not read all the content in one sitting, chapters were sent out once a week. To reduce participant burden, shorter chapters were paired together, thus reducing the intervention into ten parts over ten weeks. The order of the chapters was retained. As participants in previous RCTs could complete the book within eight weeks (Jeffcoat & Hayes, 2012; Muto, Hayes, & Jeffcoat, 2011), ten weeks was deemed a sufficient time-frame. Table 23 extends on from Table 13 in the

Journal Paper to demonstrate how each week's content, and the related ACT processes, might link to the subscales of the Comprehensive Assessment of Acceptance and Commitment Therapy Processes (CompACT; Francis, Dawson, & Golijani-Moghaddam, 2016) which was explored within the extended results (Extended Paper 3.6.).

Table 23

*Extended Table of the Ten Week Intervention and Related ACT Processes*

| Week | Chapters | Topic   | ACT Process  | CompACT Subscale |
|------|----------|---|--|------------------|
| 1    | Int. & 1 | <ul style="list-style-type: none"> <li>• Introduction</li> <li>• Human suffering</li> </ul>   | Acceptance   | OE               |
| 2    | 2        | <ul style="list-style-type: none"> <li>• Why language leads to suffering</li> </ul>   | Cognitive Defusion                                     | OE               |
| 3    | 3 & 4    | <ul style="list-style-type: none"> <li>• The pull of avoidance</li> <li>• Letting Go</li> </ul>   | Acceptance   | OE               |
| 4    | 5        | <ul style="list-style-type: none"> <li>• The trouble with thoughts</li> </ul>   | Cognitive Defusion<br>Self as Context                  | OE               |
| 5    | 6 & 7    | <ul style="list-style-type: none"> <li>• Having a thought versus buying a thought</li> <li>• If I am not my thoughts, then who am I?</li> </ul> | Cognitive Defusion<br>Self as Context<br>Being Present | OE (BA)          |
| 6    | 8        | <ul style="list-style-type: none"> <li>• Mindfulness</li> </ul>   | Being present<br>Self as Context                       | BA               |
| 7    | 9        | <ul style="list-style-type: none"> <li>• What willingness is and is not</li> </ul>  | Acceptance   | OE               |
| 8    | 10       | <ul style="list-style-type: none"> <li>• Willingness: Learning how to jump</li> </ul>   | Acceptance<br>Self as Context<br>Being Present         | OE (BA)          |

| Week | Chapters   | Topic  | ACT Process      | CompACT Subscale |
|------|------------|--|------------------|------------------|
| 9    | 11 & 12    | <ul style="list-style-type: none"> <li>• What are values?</li> <li>• Choosing your values</li> </ul>           | Values           | VA               |
| 10   | 13 & Conc. | <ul style="list-style-type: none"> <li>• Committing to doing it</li> <li>• The choice of vital life</li> </ul> | Committed Action | VA               |

*Note.* Int. = Introduction; Conc. = Conclusion; OE = Openness to Experience; BA = Behavioural Awareness; VA = Valued Action. On weeks where more than one CompACT subscale may be targeted, the secondary subscale is indicated in parentheses.

Whilst guided self-help interventions showed greater efficacy than non-guided self-help interventions, “*Get Out of your Mind and into your Life*” (Hayes & Smith, 2005) had not previously been tested within guided formats (French et al., 2017). Therefore, prompts to seek support from an AP were added where necessary. Amendments also included the widening of the writing spaces within the exercises, as per the recommendations of the Service User and Carer’s Advisory Panel (SUCAP; see Extended Paper 2.10.). This meant the intervention covered 227 pages (rather than 202) and so the page numbers were updated accordingly. Occasionally the book referred to other chapters/pages, therefore, these were amended to refer to the correct week/page number to avoid confusion. A summary of the above amendments, alongside examples, is detailed in Table 24.

Table 24

*Example Book Amendments*

| Amendment            | Example   |  | Page No. <sup>a</sup> |
|----------------------|---|--|-----------------------|
|                      | Before  | After  |                       |
| Language             | "I'll call my friend for help on my cell phone"                     | "I'll call my friend for help on my mobile phone"                                  | 57 (64)               |
| Division of chapters | Introduction, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, Conclusion | (Introduction & 1), 2, (3 & 4), 5, (6 & 7), 8, 9, 10, (11 & 12), (13 & Conclusion) | n/a                   |
| Guidance prompts     | "This book is based on..."  | "This guided self-help is based on..."   | 1 (1)                 |
|                      | "If you aren't sure, then skip ahead to chapters 11 and 12..."      | "...consider asking your Assistant Psychologist for advice"                        | 121 (138)             |
| Writing space        | Narrow lines for "Milk, Milk, Milk" exercise                        | Wider lines for "Milk, Milk, Milk" exercise  | 71 (85)               |
| References           | "...your Coping Strategies Worksheet in chapter 2"                  | "...your Coping Strategies Worksheet in week 2"                                    | 33 (38)               |

*Note.* <sup>a</sup> Page numbers of original book (amended book in parentheses)

Due to the book being a well-established, ACT coherent, self-help intervention, adherence checks focused on the amendments made. Amendments were checked to ensure that content was not added that was inconsistent with the ACT model. Checks were informed by consultancy with two ACT clinicians with more than 10-years' experience practicing and researching ACT. The assessment indicated that the book amendments remained coherent to the ACT model.

## 2.9. Guided Phone Calls

The guided component of the intervention was chosen due to ACT literature indicating guided self-help interventions achieve greater outcomes in comparison to pure self-help interventions (French et al., 2017). The chosen length of the phone calls was 30 minutes due to it being (a) the standard length of guided phone calls within guided ACT self-help literature (French et al., 2017), and (b) sufficient to provide support regarding the content of the intervention without risk of deviating into more in-depth therapeutic discussion. APs were chosen to deliver the guided component of the intervention, as opposed to qualified ACT clinicians, to reflect the level of training and supervision that would be typical of low-level interventions within step-4 services. The intervention was not delivered by the lead researcher to ensure that bias was minimised during the post-intervention change interview.

To ensure that the guided phone calls remained consistent to the ACT model, the APs who delivered them had previous knowledge of ACT, and received training from the lead researcher on the ACT model alongside extra training regarding the administration of the intervention. Clinical supervision was provided by qualified Clinical Psychologists within the service who themselves practiced ACT within their clinical work. To enable consistency across how the guided phone calls were delivered, and enhance fidelity to the ACT model, a “script” was written for APs to follow each week (Appendix H). These scripts were designed to be semi-structured to allow flexibility to what participants brought each week. The structure was based around providing the AP a reminder of the content and aims of that week, and prompting them to (a) check-in with the participant, (b) discuss and clarify the various exercises, and (c) clarify the participant’s progress through the intervention/research. The scripts were independently checked by two clinicians with more than ten years’ experience practicing and researching ACT, and 100% inter-rater agreement was achieved with the assessment indicating adherence to the ACT model.

## **2.10. Service User and Carers' Advisory Panel**

Service user involvement in service development has extensive advantages and is becoming more prevalent within mental health settings (Rose, Fleischmann, Tonkiss, Campbell, & Wykes, 2002). To ensure the accessibility of the intervention to the client group, a focus group was held with individuals with lived experience of mental health difficulties from the SUCAP, Nottingham, UK. Members were given access to the intervention material, and the intervention and research procedures were explained by the lead researcher. Members of the group were encouraged to discuss their thoughts about the intervention and relay any related suggestions or amendments (Table 25).

Table 25

*SUCAP Feedback and Actions*

| Feedback  | Action  |
|---|---|
| The lay-out of the folder for keeping the chapters in was clear   | n/a   |
| The description of ACT given within the pre-intervention meeting and on the information sheet was set at an appropriate level   | n/a   |
| The AP scripts were good, particularly as they allowed a level of flexibility to respond to what the client brought to the phone call   | n/a   |
| The proposed weekly plan of the intervention/research seemed suitable and well-paced  | n/a   |
| Advised more space for writing in the exercises   | Spaces widened  |
| Advised to inform participants in the pre-intervention meeting that the book does not have to be completed perfectly and that their work will not be “checked” or “scored”                                      | Included in pre-intervention meeting  |
| Advised to inform participants in the pre-intervention meeting that their outcome measure scores will be kept from the service and will not influence whether they remain on the waiting list for psychotherapy | Included in pre-intervention meeting  |
| Advised that results of outcome measures could be fed back to participants in the post-intervention meeting   | Participants offered summary of results <i>after</i> completion of change interview |
| Advised that feedback could be gained from participants about the research process  | Included within change interview  |



## 2.11. Outcome Measures

Outcome measures were chosen as the main mode of measurement within this study. Whilst they have subjective and reductionist limitations, they can provide a standardised measurement of experience (Boswell, Kraus, Miller, & Lambert, 2015), and the addition of the change interview can help reduce the impact of such limitations. The selection of outcome measures used within this study included consideration of whether available measures (a) aimed to measure the outcomes under investigation, (b) were not over-burdensome on the participant, and (c) had appropriate psychometric properties (Coster, 2013). As outcome measures were taken on a weekly basis, amendments were made to the wording of measures that typically asked participants to consider a longer time frame (i.e., “Over the last two weeks...” amended to “Over the last week...”). Whilst this could impact the validity of the reported test-retest reliabilities, it was deemed appropriate to ensure the relevance of the measures to the research aims. This section aims to detail the critique and rationale for the outcome measures selected.

Due to the PMPO being established within psychotherapeutic literature, outcome measures have been developed that cover its three constructs: well-being, symptomatology, and life-functioning. For example, the Evaluation of Psychotherapeutic Processes (Der Fragebogen zur Evaluation von Psychotherapieverlaufen; Lutz et al., 2009) was developed specifically based upon the PMPO. However, this measure was deemed unsuitable for this study due to it not having been previously translated and verified within UK populations. Other measures that cover the three areas include the Behavioural Health Measure (Kopta & Lowry, 2002) and the CORE-OM. However, the number of items per factor within these measures remains small, and so the depth and strength of conclusions made from the outcomes would be limited. Whilst data from the overall score of the CORE-OM was retained (standard service protocol), analysis was instead based on measures that individually tapped into each phase of the PMPO.

### **2.11.1. Measure of Well-Being.**

Many measures of well-being could be argued to not cover all aspects of well-being (Linton, Dieppe, & Medina-Lara, 2016). As discussed in the introduction, Keyes (2005, 2013) argued that well-being covers three areas: emotional, social, and psychological. To ensure that well-being is comprehensively measured, these subcomponents could be measured individually (e.g., Ryff's psychological well-being scales [Ryff, 1989]), and the Satisfaction with Life Scale [Diener, Emmons, Larsen, & Griffin, 1985]), however, such an approach could be deemed arduous on participants. The Mental Health Continuum (MHC; Keyes, 2002) has the advantage of being a single measure that has been consistently shown to map onto the three factors (Joshani, Wissing, Khumalo, & Lamers, 2013; Keyes et al., 2008; Lamers et al., 2011). It also maps onto Keyes' (2005, 2013) model, therefore, allowing for measurement of positive well-being of which there has been an identified need within ACT self-help interventions (Trompetter et al., 2017).

As the MHC-SF has been a commonly utilised measure of well-being within published ACT self-help literature (French et al., 2017), any results gathered are comparable to previous findings. An alternative measure often purported to measure well-being within ACT self-help literature is the Quality-of-life Inventory (French et al., 2017; Frisch, Cornell, Villanueva, & Retzlaff, 1992). As discussed (Extended Paper 1.8.), it is unclear if quality-of-life is synonymous with subjective well-being, therefore, focus was placed on well-being and the MHC-SF due to its clearer relation to the PMPO.

The original MHC consists of 40 items and so, to reduce participant burden, the short-form version has been chosen, which retains good psychometric properties (Keyes et al., 2012; Lamers et al., 2011). Despite consisting of the three factors, it is advised that only the overall score is reported (Jovanović, 2015). However, this is suitable within the aims of this study.

### **2.11.2. Measure of Symptomatology.**

Mental illness “symptoms” are varied and diverse within Step-4 populations, and so a measure was required that considered the more broader aspects of symptomatology. The DASS (S. H. Lovibond & Lovibond, 1995) was designed as a measure of the shared causes across depression, anxiety, and stress and, because it is not diagnosis-specific, it is appropriate for use in more diverse clinical populations. Like ACT, the measurement strategy is more focused on common outcomes that are deemed to underpin mental health difficulties (transdiagnostic) rather than specific ‘diagnoses’ (Osman et al., 2012).

Other measures that are most commonly used to measure symptomatology are the Beck Scales, i.e., the BAI (Beck & Steeier, 1993) and the BDI (Beck, Steer, & Brown, 1996). However, when directly compared, the DASS showed greater separation in factor loadings, and the BDI was argued to fail to discriminate between depression and other affective states due to including items such as weight loss, insomnia, somatic preoccupations, and irritability (P. F. Lovibond & Lovibond, 1995). Compared to the Hospital Anxiety and Depression Scale (Zigmond & Snaith, 1983), the DASS has the additional dimension of stress and superior internal consistency (Sukantarat, Williamson, & Brett, 2007).

The shorter version of the measure (DASS-21) was chosen as it is less taxing on participants and has been shown to have a cleaner factor structure (Antony, Bieling, Cox, Enns, & Swinson, 1998; Clara et al., 2001). Whilst no test-retest data exists within UK populations (Silva et al., 2016), it has consistently displayed good psychometric properties (Bottesi et al., 2015; Davies et al., 2015; Henry & Crawford, 2005). It has also been used in other ACT self-help literature (French et al., 2017), therefore, making outcomes comparable to previous findings.

### **2.11.3. Measure of Life-Functioning.**

Weissman, Olfson, Gameroff, Feder, & Fuentes (2001) compared three scales of life-functioning: The Social Adjustment Scale – Self Report (SAS-SR; Weissman & Bothwell, 1976), the Short-Form Health Survey (SFHS; Ware & Sherbourne, 1992), and the Social Adaptation Self-Evaluation Scale (SASES; Bosc, Dubini, & Polin, 1997). All three had good psychometric properties, but suitability was determined by the questions trying to be answered. The SAS-SR was deemed most suitable, as the SFHS included emotional well-being which would overlap with the MHC-SF, and the SASES focused on *motivation* to action rather than direct functioning. It could be argued that the length of the SAS-SR is too taxing on participants, however, as life-functioning is so broad, a measure that covers multiple factors is needed.

The SAS-SR was developed from the Social Adjustment Scale Interview (Weissman, Klerman, Paykel, Prusoff, & Hanson, 1974) and so has good face validity. It correlates well with interview findings (Weissman & Bothwell, 1976), but is more sensitive to change in an individual's clinical status (Achard et al., 1995). It has also been utilised within PMPO literature (Hilsenroth et al., 2001), and has further strengths in its allowance for items to be omitted if not relevant to the individual (e.g., questions relating to childcare), therefore, making it more person-centred. However, it is not clear what impact that omitting items may have on the psychometric properties, therefore, this study follows advice that only overall scores should be used (Paykel, Weissman, Prusoff, & Tonks, 1971).

To improve accessibility to this study's sample, the modified version of the measure has been chosen (Social Adjustment Scale – Self Report – Modified [SAS-SR-M]). Modifications made in the SAS-SR-M were slight language changes to ensure suitability for UK populations, and consistent labels used on the Likert Scales throughout. Whilst this might impact the psychometric properties, it is argued that the modifications were minor and it correlates well with the original SAS-SR (Cooper et al., 1982). The measure has been found useful in community samples and psychiatric outpatient groups, and it is

suggested that community norms be used as a stable criterion against which psychiatric populations may be compared (Weissman, 1981).

Despite the above rationale, the measure still has limitations for use within ACT research. Closer inspection reveals that some items may problematise feelings (e.g., “Over the last week have you felt upset, worried, or uncomfortable at work?”) and, given that ACT encourages an individual to take action despite difficult feelings (Hayes, 2004), such wording may be inappropriate. With ACT’s focus on values and goals, having a measure that captures the perceived impact of the “problem” on an individual’s ability to act in important life domains seems focal. Often used within ACT self-help literature is the Quality-of-life Inventory (French et al., 2017; Frisch et al., 1992), which could be viewed to meet this need as the measure aims to capture the gap between an individual’s ideal life and their current reality. However, as discussed (Extended Paper 1.8.), it is related to well-being rather than life-functioning, thereby making it unsuitable. A better alternative could be argued to be the Work and Social Adjustment Scale (Mundt, Marks, Shear, & Greist, 2002), with items focused on the impact of “problems” on functioning (e.g., “Because of my problem, my ability to work is impaired”); however, this is extremely brief (only five items), and during the study’s development priority had been placed on finding a more detailed measure to enhance the depth and strength of conclusions that could be made<sup>27</sup>.

#### **2.11.4. Measures of Psychological Flexibility.**

Psychological flexibility is most typically measured using the Acceptance and Action Questionnaires (AAQ; Bond et al., 2011; Hayes et al., 2006). Whilst psychological flexibility measures exist for specific client populations (e.g., Psychological Inflexibility in Pain Scale [Wicksell, Lekander, Sorjonen, & Olsson, 2010]), participants within this study had heterogeneous presentations

---

<sup>27</sup> See Extended Paper 5.1. for reflections on choice of life-functioning outcome measure.

and so a more general measure of psychological flexibility was required. The AAQ-II (Bond et al., 2011) retains good psychometric properties; however, has been critiqued for being too heavily loaded on distress and negative-effect (Francis, Dawson, & Golijani-Moghaddam, 2016; Rochefort, Baldwin, & Chmielewski, 2017; Wolgast, 2014). It also only loads onto one factor, therefore, limiting its ability to differentiate between the influences of the individual ACT core processes.

An alternative to the AAQ-II is the CompACT, which is argued to not be as loaded onto distress and has the advantage of measuring psychological flexibility across three factors (Francis et al., 2016). This means that more in-depth analysis of the ACT core processes can be investigated. An alternative would be to use individual measures of each ACT process, including acceptance/experiential avoidance (e.g., Gámez et al., 2014), fusion/defusion (e.g., Gillanders et al., 2014), and values (e.g., Wilson, Sandoz, Kitchens, & Roberts, 2010). However, it is not clear how these measures would inter-relate (conceptually or empirically), and multiple measures would be burdensome on participants.

Evidence for the psychometric properties of the CompACT (and its three subscales) is still developing, with current findings looking promising (Bayliss, Golijani-Moghaddam, & Dawson, 2018; Francis et al., 2016). However, it is not yet widely established in the literature, whilst the AAQ-II is highly prevalent within ACT self-help research (French et al., 2017). Therefore, to enable depth of analysis the CompACT was chosen as the weekly measure, with the AAQ-II at pre-, mid-, and post-intervention to enable outcomes to be compared to previous findings. As both measures contain questions relating to some of the ACT theory that participants learn during intervention, it needs to be considered that they may show bias towards responding how they think they “should” respond. However, this is a limitation across many self-report measures, and so should already be considered during analysis.

#### **2.11.5. Additional Outcome Measures.**

Standard protocol of the recruiting service included the administration of the CORE-OM (Evans et al., 2000) at pre- and post-intervention time-points. With participant permission, results of the CORE-OM were included within the additional analyses. This was to aid the triangulation of results, and enable comparison to other client groups.

The results of the three CompACT subscales (see Extended Paper 2.11.4.) were also included within the additional analyses, to enable a more in-depth analysis of ACT processes. The psychometric properties, along with RCI and CC criterion, of both the CORE-OM and the CompACT subscales are detailed in Table 26.

Table 26

*Additional Outcome Measures*

| Outcome Measure   | Aims to Measure...   | No. of Items and scaling  | Example Item                             | Scoring and Direction  | CC and RCI                                   | Reliability (IC and TR)  | Validity  |
|---|--|---|--|--|--|--|---|
| Clinical Outcomes in Routine Evaluation – Outcome Measure (CORE-OM; Evans et al., 2000) | Therapeutic outcomes (well-being, problems, functioning, risk) | 34 items (subscales 4, 12, 12, and 6 respectively)<br>6-point Likert scales (0-5) | “I have felt tense, anxious, or nervous” | Scores calculated as averages multiplied by 10<br><br>Higher scores indicate greater difficulties<br><br>Range: 0-10 | <b>CC</b><br>10.00<br><br><b>RCI</b><br>5.00 | <b>IC</b><br>$\alpha = .91$<br>(Connell et al., 2007)<br><br><b>One-Week TR</b><br>$r = .90$<br>(Evans et al., 2002) | <b>Convergent</b><br>Correlates with the CIS-R, with subscales each correlating with related measures (BDI-I; BDI-II; BAI; BSI; SCL-90; GHQ-28; IIP-32; (Connell et al., 2007; Evans et al., 2002)<br><br><b>Divergent</b><br>Able to discriminate between clinical and non-clinical populations (Evans et al., 2002) |



| Outcome Measure   | Aims to Measure...     | No. of Items and scaling                    | Example Item   | Scoring and Direction  | CC and RCI                                   | Reliability (IC and TR)  | Validity  |
|---|------------------------|---|--|--|--|--|---|
| CompACT Subscale - Openness to Experience (OE; Francis, Dawson, & Golijani-Moghaddam, 2016) | Openness to experience | 10 items<br><br>7-point Likert scales (0-6) | "I can take thoughts and feelings as they come, without attempting to control or avoid them" | Scores calculated as totals<br><br>Higher scores indicate greater psychological flexibility<br><br>Range: 0-60 | <b>CC</b><br>28.34<br><br><b>RCI</b><br>9.50 | <b>IC</b><br>$\alpha = .90$<br>(Francis et al., 2016)<br><br><b>Two-Week TR</b><br>$r = .87$<br>(Bayliss et al., 2018) | <b>Convergent</b><br>Correlated with the AAQ-II (Bayliss et al., 2018)<br><br><b>Discriminant</b><br>Did not correlate with measure of social desirability (MCSD-SF; Bayliss et al., 2018)<br><br><b>Concurrent</b><br>Correlates with DASS-21 subscales (Bayliss et al., 2018) |

| Outcome Measure  | Aims to Measure...    | No. of Items and scaling                   | Example Item  | Scoring and Direction  | CC and RCI                                   | Reliability (IC and TR)  | Validity  |
|--|-----------------------|--|---|--|--|--|---|
| CompACT Subscale – Behavioural Awareness (BA; Francis, Dawson, & Golijani-Moghaddam, 2016) | Behavioural awareness | 5 items<br><br>7-point Likert scales (0-6) | “I rush through meaningful activities without being really attentive to them” | Scores calculated as totals<br><br>Higher scores indicate greater psychological flexibility<br><br>Range: 0-30 | <b>CC</b><br>15.41<br><br><b>RCI</b><br>5.72 | <b>IC</b><br>$\alpha = .87$<br>(Francis et al., 2016)<br><br><b>Two-Week TR</b><br>$r = .83$<br>(Bayliss et al., 2018) | <b>Convergent</b><br>Correlated with the AAQ-II (Bayliss et al., 2018)<br><br><b>Discriminant</b><br>Did not correlate with measure of social desirability (MCSD-SF; Bayliss et al., 2018)<br><br><b>Concurrent</b><br>Correlates with DASS-21 subscales (Bayliss et al., 2018) |

| Outcome Measure  | Aims to Measure... | No. of Items and scaling                   | Example Item                               | Scoring and Direction  | CC and RCI                                   | Reliability (IC and TR)  | Validity  |
|--|--------------------|--|--|--|--|--|---|
| CompACT Subscale – Valued Action (VA; Francis, Dawson, & Golijani-Moghaddam, 2016) | Valued action      | 8 items<br><br>7-point Likert scales (0-6) | “I behave in line with my personal values” | Scores calculated as totals<br><br>Higher scores indicate greater psychological flexibility<br><br>Range: 0-40 | <b>CC</b><br>37.23<br><br><b>RCI</b><br>7.26 | <b>IC</b><br>$\alpha = .90$<br>(Francis et al., 2016)<br><br><b>Two-Week TR</b><br>$r = .80$<br>(Bayliss et al., 2018) | <b>Convergent</b><br>Correlated with the AAQ-II (Bayliss et al., 2018)<br><br><b>Discriminant</b><br>Did not correlate with measure of social desirability (MCSD-SF; Bayliss et al., 2018)<br><br><b>Concurrent</b><br>Correlates with DASS-21 subscales (Bayliss et al., 2018) |

*Note.* CCs and RCIs calculated using clinical and non-clinical norms in previous literature when standardised values unavailable; CC = Clinical Cut-Off; RCI = Reliable Change Index, whereby changes in score greater than the RCI value are deemed significant; IC = Internal Consistency; TR = Test-Retest; CompACT = Comprehensive Assessment of Acceptance and Commitment Therapy Processes (Francis et al., 2016); DASS-42 = Depression, Anxiety, and Stress Scale – 42 (S. H. Lovibond & Lovibond, 1995); MCSD-SF = Marlow-Crowne Social Desirability Scale–Short Form (Ballard, 1992).

## **2.12. Baseline Phase**

A minimum of three data points is required to assess the stability and trajectory of a baseline and, to minimise misattribution of outcomes that might be caused by the passage of time, baselines are advised to be of differing lengths (Barlow et al., 2008). Therefore, baselines were either three, four, or five weeks in duration. Participants commenced their baseline on the first weekend following the pre-intervention meeting, with outcomes then taken weekly to enable clearer comparison to the weekly outcomes during the intervention, and to reduce participant burden.

Baseline lengths were pseudo-randomly assigned. The available baseline lengths (three, four, and five weeks) were randomised using a random computer generator, with the order of this randomisation duplicated until the desired number of participants had been recruited. The baseline lengths were allocated to participants in the order that they attended the pre-intervention meetings (meetings were organised by the service who were blind to the randomisation). Multiple-baseline designs advise against concurrent participants to protect against the impact of current events (e.g., news events) being misattributed to the intervention (Barlow et al., 2008). Therefore, if the allocated baseline would have led to a participant commencing the intervention at the same time as another participant, they were instead given the next baseline length on the randomised list.

As observed changes in the treatment phase (B) need to go beyond any variations that occurred in the baseline phase (A), the DV needs to be stable before treatment commences (Barlow et al., 2008). The primary DV in this study was the MHC-SF (Keyes, 2002). Stability was assessed through visual inspection, against exemplar patterns of baseline stability/instability as reported by Hersen (1990), with baseline lengths being extended if (a) the baseline trend was towards improvement and/or (b) more than 20% of baseline scores met the criteria for reliable change from the original pre-intervention score. This second criterion was selected to account for the variability of the outcome measure when assessing stability, i.e., that most (at least 80% of) baseline responding is

within the expected range (chance variability) given known measurement properties of the MHC-SF.

### **2.13. Intervention Phase**

Following the baseline phase, each participant received the book's introduction and first chapter on the Monday. Participants were instructed to read the chapters, and complete any exercises, by the end of the week. A guided phone call with their allocated AP was conducted on the Thursday, at a time suitable for the participant. Thursday was chosen (instead of Friday) due to the work pattern of the APs, therefore, reflecting what would be achievable within this service setting. Participants were advised that they did not need to have fully completed the chapters prior to this call, however, that they needed to have engaged in at least some of that week's content to enable the phone call to be helpful. At the end of each week, participants were emailed a link to the online platform (Qualtrics, Provo, UT, USA) where they could complete the battery of outcome measures. This process was repeated over ten weeks, with each week having different chapters sent out in the order detailed in Table 13. As the fifth week (mid-intervention) involved the additional AAQ-II measure being completed, an alternative link was emailed that sent participants to a version of the battery that also included the AAQ-II.

The systematic process of sending chapters week-by-week ensured that participants did not read the whole book in one sitting, and enabled additional analysis of the impact of certain chapters over the duration of the ten weeks. The fact that participants completed each week at a different time minimised the risk of the impact of extraneous variables (e.g., news events) being wrongly attributed to certain chapters.

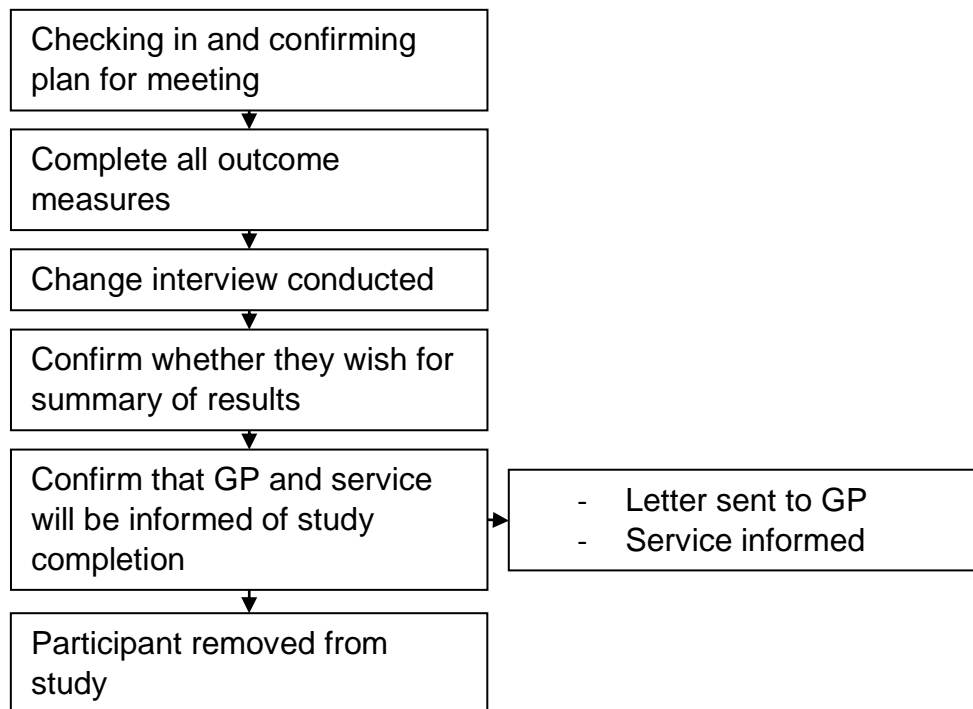
Chapters were posted by the lead administrator of the service, and were timed so that they would arrive on the Monday of each week. Participants opting for postal administration of outcomes were sent printed copies of the measures to complete each week which were sent alongside the chapters, with a pre-paid

return envelope and clear guidelines on when to complete them. These participants were given the option of an additional weekly email reminder to complete the measures.

Participants received their weekly phone calls from their allocated AP. The two APs who conducted the phone calls were employed to cover different locations within the service, and so allocations were based on the participant's location. On occasions when the allocated AP was unavailable due to annual leave, a third AP was made available to cover the phone call. Participants were informed of dates when this was due to occur.

#### **2.14. Post-Intervention Meeting**

The post-intervention meeting was held by the lead researcher at the service location. All outcome measures were completed for the final time prior to the completion of the change interview, to minimise the impact of the interview on outcomes. The content of the post-intervention meeting is detailed in Figure 18.



*Figure 18. Post-Intervention Meeting*

### **2.15. Semi-Structured Change Interview.**

To ensure consideration of contextual factors and determine explanations of change, a change interview was conducted during the post-intervention meeting (Elliott, Slatick, & Urman, 2001; Appendix K). The interview was conducted by the lead researcher, who had not administered the intervention, therefore, minimising bias in feedback. The interview structure was based upon Elliot et al.'s (2001) change interview protocol, exploring what elements of the intervention the participants found helpful/unhelpful, what changes they experienced, and what they attributed these changes to. Due to the intervention being new to this waiting list population, questions were also asked regarding the intervention's feasibility. The interview schedule was semi-structured to allow flexibility to use follow-up questions to explore things in-depth, whilst ensuring adherence to the research aims.

## **2.16. Fidelity Checks of Phone Calls**

As highlighted by Öst (2014), ACT research is limited through lack of fidelity checks on the contents of the interventions. To ensure the validity and reliability of any conclusions drawn from the findings, fidelity checks were conducted on the guided phone-calls. For logistical reasons, phone calls were not audio-recorded but were instead logged within written notes. This limited the depth of assessment that could be made, as the notes did not give a full comprehensive account of discussions, and so assessment criteria were adapted to reflect this.

Using strategies advised within Plumb and Vilardaga's (2010) guidelines, 10% of the phone calls (rounded up to  $n = 3$ ) were selected via a random number generator and independently assessed by the first and second author. The authors rated each phone-call, using a three-point scale (0 = no; 1 = somewhat; 2 = yes), on the following questions:

1. Was the recorded content of the discussions consistent with intended foci (as specified in the weekly scripts for the guided phone calls)?
2. Was any advice given that was inconsistent with the ACT model (e.g., thought challenging)? [Reverse-scored]
3. Was the AP suitably flexible and responsive to issues raised by the participant?

The ratings of the first and second author were then compared and inter-rater agreement determined. The median rating score was then calculated to determine likely levels of adherence to the ACT model.

## **2.17. Reliable and Clinically Significant Change**

Jacobson and Truax (1991) suggested that individual change in outcomes following an intervention can be deemed meaningful if the criteria for



(a) reliable change and (b) Clinically Significant Change (CSC) are met. Therefore, these criteria were utilised within this study when assessing outcomes. If a measure had pre-established values for determining reliable change and CSC then these were used; however, for measures that did not, the following calculations were made.

### 2.17.1. Reliable Change.

Reliable change refers to when the change in an individual's outcome score is statistically significant. To calculate this, the change in an individual's score (pre-intervention score [ $X_1$ ] to post-intervention score [ $X_2$ ]) is divided by the standard error of difference between the two test scores ( $S_{diff}$ ), as shown in Figure 19. If this produces a value greater than 1.96 then the observed change is unlikely to have occurred by chance alone ( $p < .05$ ; Jacobson & Truax, 1991).

$$RC = \frac{X_2 - X_1}{S_{diff}}$$

Figure 19. Formula for Determining Reliable Change

The  $S_{diff}$  can be calculated from the standard error of the measure used ( $S_E$ ), as shown in Figure 20, whereby the  $S_E$  is calculated from the SD of the test-takers' scores and the internal consistency ( $\alpha$ ) of the measure (Figure 21).

$$S_{diff} = \sqrt{2(S_E)^2}$$

Figure 20. Formula for Standard Error of Difference

$$S_E = SD\sqrt{(1 - \alpha)}$$

Figure 21. Formula for Standard Error of Measurement

Therefore, provided that the internal consistency ( $\alpha$ ) of the measure is known, alongside the SD of scores from a comparable clinical sample of test-takers, a value referred to as the Reliable Change Index (RCI) can be computed. The RCI is the amount of change required from pre- to post-scores ( $X_2 - X_1$ ) for it to be deemed significant for that measure and clinical population.

Therefore, the RCI was calculated for each outcome measure used using the following equation (Figure 22), based upon clinical SDs and internal consistencies ( $\alpha$ ) reported in the literature. This value was then used to determine whether reliable change was observed.

$$RCI = 1.96\sqrt{2\left(SD\sqrt{(1 - \alpha)}\right)^2}$$

Figure 22. Formula for Reliable Change Index

### 2.17.2. Clinically Significant Change.

To determine if observed reliable change is clinically significant, Jacobson and Truax (1991) proposed three criteria as detailed in Table 27.

Table 27

*Criteria for Clinically Significant Change*

| Criterion   | Definition  | When to Use  |
|-------------|---|--|
| Criterion A | The individual's score has moved to outside the range of the clinical population (a minimum of 1.96 SDs away from the mean of the clinical population) in the direction of the non-clinical population. | If the normative data for a non-clinical population are not available.   |
| Criterion B | The individual's score has moved into the range of the non-clinical population (a maximum of 1.96 SDs away from the mean of the non-clinical population).   | If the normative data for clinical and non-clinical populations are available, and the scores from the two populations do not overlap. |
| Criterion C | The individual's score has moved closer to the mean of the non-clinical population than the clinical population.  | If the normative data for clinical and non-clinical populations are available, and the scores from the two populations overlap.        |

Following collection of clinical and non-clinical normative data, it was assessed that, for all measures, the group scores overlapped. Therefore, Criterion C was adopted when establishing a measure's clinical cut-off (CC); the value that a participant's score would need to cross to have shown CSC. This value is calculated as follows (Figure 23), where  $M_1$  and  $S_1$  indicate the mean and SD of the clinical population, and  $M_2$  and  $S_2$  indicate the mean and SD of the non-clinical population.

$$c = \frac{S_0M_1 + S_1M_0}{S_0 + S_1}$$

*Figure 23. Formula for Criterion C*

### **2.17.3. Normative Data.**

The clinical and non-clinical population norms that were gathered from the literature for each measure to determine RCI and CC values are detailed in Table 28. Due to the small sample size within this study ( $n = 7$ ), the calculation of RCIs and CCs was based on clinical norms from the literature, rather than the pre-intervention means and SDs of the participants (Jacobson & Truax, 1991). In each case, an ideal clinical comparison group would have been a moderate/severe mixed diagnostic community waiting list sample, however, in cases where this was unavailable, a judgement was made about the best group norms that were most comparable to this study's sample. Due to the wide range of complex presentations seen on Step-4 waiting lists, there is the possibility that the clinical reference groups are not representative of this study's sample. This has implications for the application of the RCIs and CCs that have been calculated, and so meaningful change may be incorrectly assessed. Therefore, to enhance homogeneity within population samples selected, the choice of clinical sample was informed by both (a) the sample demographics and (b) comparisons to the pre-intervention outcomes found within this study.

The means and SDs of (a) the three main participants, (b) the four participants who dropped out, and (c) all seven participants, are displayed in Table 29 to enable clearer comparison to the clinical norms. Homogeneity between the participants within this study and the clinical population is indicated on all measures, with the pre-intervention scores falling within two SD of the clinical population means. This means that use of these clinical population norms in determining RCI and CSC within this study is appropriate.

Table 28

*Psychometric Properties and Reference Group Norms of Measures*

| Measure  | Sample   | Population  | N    | Factor | Mean (SD)     |
|----------|--|---|------|--------|---------------|
| MCH-SF   | Non-Clinical (Keyes et al., 2012)                                    | USA students from 13 colleges/universities nationwide.                      | 5689 | Total  | 3.39 (0.88)   |
|          | Clinical (Fledderus, Oude Voshaar, ten Klooster, & Bohlmeijer, 2012) | Dutch adults in the community with mild to moderate anxiety and depression. | 362  | Total  | 2.13* (0.76)  |
| DASS-21  | Non-Clinical (Henry & Crawford, 2005)                                | UK adult community sample.  | 1794 | Total  | 18.86 (19.32) |
|          |  |   |      | Dep    | 5.66 (7.74)   |
|          |  |   |      | Anx    | 3.75 (5.90)   |
|          |  |   |      | Stress | 9.46 (8.40)   |
|          | Clinical (Davies et al., 2015)                                       | Australian adults in the community referred for psychiatric assessment.     | 2542 | Total  | 61.78 (34.26) |
|          |  |   |      | Dep    | 21.02 (13.51) |
|          |  |   |      | Anx    | 17.06 (11.64) |
|          |  |   |      | Stress | 23.17 (12.35) |
| SAS-SR-M | Non-Clinical (Weissman, Prusoff, Thompson, Harding, & Myers, 1978)   | USA adult community sample.   | 482  | Total  | 1.59 (0.33)   |
|          | Clinical (Weissman et al., 1978)                                     | USA adult psychiatric outpatients with acute depression.                    | 191  | Total  | 2.53 (0.46)   |

| Measure | Sample   | Population  | N     | Factor | Mean (SD)     |
|---------|--|---|-------|--------|---------------|
| CompACT | Non-Clinical (Francis et al., 2016)              | UK university students.   | 256   | Total  | 93.92 (17.26) |
|         |  |   |       | OE     | 35.63 (11.51) |
|         |  |   |       | BA     | 18.69 (6.45)  |
|         |  |   |       | VA     | 39.59 (5.87)  |
|         | Clinical (Francis et al., 2016)                  | UK university students meeting clinical cut-off in DASS-21 outcomes.                          | 96    | Total  | 67.93 (17.98) |
|         |  |   |       | OE     | 21.48 (10.84) |
|         |  |   |       | BA     | 12.51 (5.72)  |
|         |  |   |       | VA     | 33.94 (8.17)  |
| AAQ-II  | Non-Clinical (Bond et al., 2011)                 | UK adult employees of a retail bank.  | 583   | Total  | 18.53 (7.52)  |
|         | Clinical (Fledderus, Oude Voshaar, et al., 2012) | Dutch adults in the community with mild to moderate anxiety and depression.                   | 376   | Total  | 40.72 (8.59)  |
| CORE-OM | Non-Clinical (Connell et al., 2007)              | UK adult community sample.  | 553   | Total  | 4.80 (4.30)   |
|         | Clinical (Connell et al., 2007)                  | UK adults in the community referred to primary and secondary care psychotherapeutic services. | 10761 | Total  | 18.30 (7.10)  |

*Note.* \* Due to scoring inconsistency (items rated 1-6 rather than the standard 0-5) the mean score has been adjusted accordingly to enable clearer comparison (Original reported mean = 3.13); SD = Standard Deviation; MHC-SF = Mental Health Continuum – Short Form; DASS-21 = Depression, Anxiety, and Stress Scale – 21; SAS-SR-M = Social Adjustment Scale – Self-Report – Modified; CompACT = Comprehensive Assessment of Acceptance and Commitment Therapy Processes; Dep = Depression subscale; Anx = Anxiety subscale; OE = Openness to Experience subscale; BA = Behavioural Awareness subscale; VA = Valued Action subscale.

Table 29

*Comparison of Clinical Norms to Study Sample*

| Measure  | Factor | Three main participants | Four Drop-Outs | All Seven Participants | Clinical Norms |
|----------|--------|-------------------------|----------------|------------------------|----------------|
|          |        | Mean (SD)               | Mean (SD)      | Mean (SD)              | Mean (SD)      |
| MHC-SF   | Total  | 1.19 (0.17)             | 1.34 (0.20)    | 1.28 (0.19)            | 2.13* (0.76)   |
| DASS-21  | Total  | 59.33 (8.33)            | 64.00 (14.88)  | 62.00 (11.83)          | 61.78 (34.26)  |
|          | Dep    | 21.33 (5.03)            | 23.50 (8.06)   | 22.57 (6.50)           | 21.02 (13.51)  |
|          | Anx    | 11.33 (6.43)            | 16.50 (5.26)   | 14.29 (5.94)           | 17.06 (11.64)  |
|          | Stress | 26.67 (6.43)            | 24.00 (6.93)   | 25.14 (6.31)           | 23.17 (12.35)  |
| SAS-SR-M | Total  | 2.93 (0.37)             | 2.70 (0.21)    | 2.80 (0.29)            | 2.53 (0.46)    |
| CompACT  | Total  | 59.33 (14.01)           | 59.25 (15.69)  | 59.29 (13.73)          | 67.93 (17.98)  |
|          | OE     | 21.67 (8.14)            | 17.75 (9.18)   | 19.43 (8.28)           | 21.48 (10.84)  |
|          | BA     | 11.00 (6.93)            | 15.50 (8.10)   | 13.57 (7.39)           | 12.51 (5.72)   |
|          | VA     | 26.67 (.58)             | 26.00 (8.76)   | 26.29 (6.21)           | 33.94 (8.17)   |
| AAQ-II   | Total  | 36.33 (9.24)            | 40.75 (6.13)   | 38.86 (7.27)           | 40.72 (8.59)   |
| CORE-OM  | Total  | 18.14 (2.95)            | 21.76 (4.83)   | 20.21 (4.28)           | 18.3 (7.1)     |

*Note.* \* Due to scoring inconsistency (items rated 1-6 rather than the standard 0-5) the mean score has been adjusted accordingly to enable clearer comparison (Original reported mean = 3.13); SD = Standard Deviation; MHC-SF = Mental Health Continuum – Short Form; DASS-21 = Depression, Anxiety, and Stress Scale – 21; SAS-SR-M = Social Adjustment Scale – Self-Report – Modified; CompACT = Comprehensive Assessment of Acceptance and Commitment Therapy Processes; Dep = Depression subscale; Anx = Anxiety subscale; OE = Openness to Experience subscale; BA = Behavioural Awareness subscale; VA = Valued Action subscale.

## 2.18. Analysis of Average Percentage Change

Whilst calculating average percentage change does not necessarily indicate significant change, it can provide a quick reference to what areas of outcome may have been more greatly impacted by the intervention. Initially, the percentage change experienced by each participant between pre- and post-intervention time points on each measure was calculated. This involved dividing the change in score by the pre-intervention score (Figure 24).

$$\text{Percentage Change} = \frac{\text{Pre} - \text{Post}}{\text{Pre}} \times 100$$

Figure 24. Formula for Percentage Change

The percentage changes of each of the three participants were then summed together and divided by three to get the average percentage change (Figure 25).

$$\text{Average Percentage Change} = \frac{P^1 + P^2 + P^3}{3}$$

Figure 25. Formula for Average Percentage Change

To enable clarity in the interpretation of the percentages, values were given as positives if the change was towards the direction of improvement on that outcome measure, and given as negatives if towards deterioration.

## 2.19. Visual Analysis

Visual analysis is the main method of interpreting data collected within case-series (Barlow et al., 2008), and is considered to be generally reliable and conservative (Baer, 1977; Michael, 1974). To minimise misinterpretations, attempts have been made to operationalise the process, with analysts advised to consider level, trend, variability, immediacy of effect, overlap, and consistency of data patterns across similar phases (Kratonchwill et al., 2010).

Whilst the process of visual inspection has been operationalised to minimise misinterpretation, it remains subjective and visual inspectors are not always reliable in their judgements (Deprospero & Cohen, 1979; Ottenbacher, 1990). Visual inspection can be improved by superimposing the split-middle trendline of the baseline over the intervention phase, against which the intervention scores are interpreted (Bailey, 1984). However, levels of type I



errors (false positives) can remain high, and so Fisher et al. (2003) instead advise the use of the dual criterion method, where the mean of the baseline is also super-imposed over the intervention phase (alongside the split-middle trendline), and a certain number of points must fall above/below *both* lines to be deemed meaningful. It has since been argued that a regression trendline is more sophisticated than a split-middle trendline (Morgan & Morgan, 2009), and that use of the median of the baseline is preferable over the mean due to it being less impacted by baseline outliers. Therefore, within this study, the baseline median and regression lines are utilised.

Kazdin (1982) advised the use of a binomial formula to calculate how many points within the intervention phase would need to fall above/below the trendline for the intervention to be deemed effective. However, use of the binomial formula can only ever produce one of two outcomes, “effective” or “not-effective”, without giving any indication of the *level* of efficacy. This limits the level of analysis that can be achieved. An alternative is the percentage of non-overlapping data (PND) criteria, which is used within this study, where it is the *percentage* of points falling above/below the lines that determines level of efficacy (Scruggs & Mastropieri, 1998). Table 30 displays how many points need to fall above/below the baseline median and regression lines, towards the direction of improvement, to be deemed effective within this study.

However, calculation of PND does not consider (a) whether the scores under observation meet reliable change or CSC from the pre-intervention time-point, and (b) whether the change is consistent. To ensure this is considered within the analyses, the first time point where reliable and clinical change is observed over a minimum of two time-points (unless it is the final time-point in which stability is assumed) was indicated. This also allowed clearer consideration to the order of reliable and clinical change across the measures in relation to the PMPO.

Table 30

*PND Criteria*

| Efficacy Level       | Percentage of Points Required | Total Data Points<br>11   | Total Data Points<br>10 <sup>a</sup> |
|----------------------|-------------------------------|---------------------------|--------------------------------------|
|                      |                               | Number of Points Required | Number of Points Required            |
| Highly Effective     | ≥90%                          | 10-11                     | 9-10                                 |
| Moderately Effective | 70%-89%                       | 8-9                       | 7-8                                  |
| Minimally Effective  | 50-69%                        | 6-7                       | 5-6                                  |
| Not Effective        | <50%                          | 0-5                       | 0-4                                  |

*Note.* <sup>a</sup> Whilst the expected number of data points is expected to be 11, calculation for only 10 data points is also included due to one participant missing a week of data collection.

## 2.20. Analysis of Change Interview

Systematic approaches of qualitative analysis often produce multi-layered, hierarchical categories of findings (e.g., Grounded Theory [Rennie, Phillips, & Quartaro, 1988], and Interpretive Phenomenological Analysis [J. A. Smith, Flowers, & Larkin, 2009]), however, such depth of analysis can be considered beyond the aims of this study (Elliott, 2010). The epistemological position adopted within this study would posit that theories that do not contribute to the goals of prediction and influence are ultimately ignored or rejected (Fox, 2006). Therefore, the analysis needed to retain focus on the aims and intended use of the interview data.

To achieve this, the transcribed interviews were reviewed, with responses organised under categories determined in relation to the aims of the interview. A mixed deductive-inductive approach was taken towards the categorisation of responses with the interview's questions initially giving the structure, with changes made in response to emerging information. This kept

the analysis responsive to participant feedback, whilst retaining focus on the research aims. The content of given responses was taken at the semantic level, whereby more explicit interpretations could be made, as analysis at the latent level could take the analysis beyond the initial aims of the interview. The responses were then cross-examined across participants to observe for any replications of findings, and triangulated against quantitative findings to strengthen any conclusions made.

## **2.21. Additional Analyses**

In addition to the analysis reported within the journal paper, additional analysis was conducted on the pre- and post- intervention scores of the CORE-OM. Scores were graphically depicted, RCI and CSC analysis (as utilised within the journal article) applied, and average percentage change calculated.

Additional analysis was also conducted to investigate the impact of the weekly components of the intervention on the CompACT subscales. Scores on the each of the subscales at pre-, mid-, and post-intervention were first graphically depicted and the RCI and CSC analysis (as utilised within the journal article) was applied. Average percentage change was also calculated. Each ACT subscale was then depicted on time-series graphs alongside indication of which subscale was targeted within the chapters of the book sent each week. The data was then subjected to the same analysis that was applied to the case-series graphs within the journal article, alongside further visual analysis of whether the observed changes in the subscales were consistent with the processes being targeted in the chapters sent out each week (Table 23).

Whilst the analysis of the CompACT subscales can further uncover the processes behind changes observed, the limitations of this analysis need to be considered; mainly that (a) each chapter may touch on multiple ACT processes, and (b) that the ACT processes are unlikely to change in isolation due to them being considered inter-related to a certain extent (Francis et al., 2016; Hayes et al., 2006). Therefore, any conclusions drawn are tentative.

### **3. Extended Results**

#### **3.1. Results of Participants Who Withdrew**

Detailed below is an overview of the results of the participants who withdrew from the study (“non-completers”). It has been divided into demographic details, quantitative outcomes, and change interviews, to aid comparison and synthesis with the results of the “completers” as detailed in the journal paper.

##### **3.1.1. Demographic Details.**

Four individuals withdrew from the study: Jake, Lucy, Kim, and Rebecca<sup>28</sup> (Table 31). These individuals consisted of three females and a male, all White British, with a mean age of 36.5 years (SD = 6.24; range: 29-43). Reported difficulties were depression ( $n=2$ ), anxiety ( $n=1$ ), or bi-polar disorder ( $n=1$ ), however, all reported other mixed comorbidities. Two had prior experience of CBT (of which one also had previous counselling), one had participated in a “Psychological Skills for Life” (PSL) group, and one had no previous contact with mental health services. When considering participant demographics, both completers and non-completers appeared mostly similar; however, those who remained within the study had only had prior experience of counselling, whilst those who withdrew had a mixed selection of prior therapeutic experiences. All participants (both completers and non-completers) had pre-intervention scores that fell within the clinical range on all measures.

When considering all seven individuals who were recruited into the study, 57.14% were female ( $n=4$ ). The mean age was 37.29 years (SD = 5.345; range 29-44). Three (42.86%) were in employment at the beginning of the study, however, one lost their job part way through, and another gained employment. All were White British. Only one was married. Four (57.14%) had children who lived in the family home or had joint custody. Three reported

---

<sup>28</sup> Pseudonyms used for confidentiality

depression (42.86%), three reported anxiety (42.86%), and one reported bipolar disorder (14.29%), however, all reported other mixed comorbidities. Only one individual had no prior contact with mental health services (14.29%), whilst two had experienced CBT (28.5%), one had participated in a Psychological Skills for Life group (14.29%), and three had counselling (42.68%).

Table 31

*Withdrawn Participant Details*

| Participant | No. | Age | Gender | Ethnicity     | Current circumstances                                  | History   | Reported Difficulty                                 | Baseline | Notable events   |
|-------------|-----|-----|--------|---------------|--|---|---|----------|--|
| Jake        | 1   | 43  | Male   | White British | Unemployed<br><br>Single. No children.<br>Lives alone. | Difficult upbringing.<br>History of losing job due to work-related stress and back pain.<br>Historic suicide attempts.<br><br>Historically on medication for sleep and depression.<br>Prior experience of CBT, psychodynamic psychotherapy, and trans-cranium magnetic stimulation. | Depression<br><br>Also reports difficulty sleeping. | 3 weeks  | Week 2: Missed phone call due to ill health<br><br>Week 3: Requested phone call to be about week 2.<br>Expressed anger at not receiving extra phone call.<br><br>Withdrew: During week 4 due to not finding the intervention helpful |

| Participant | No. | Age | Gender | Ethnicity     | Current circumstances                                | History  | Reported Difficulty  | Baseline  | Notable events   |
|-------------|-----|-----|--------|---------------|--|--|--|---|--|
| Lucy        | 2   | 40  | Female | White British | Unemployed<br><br>Single. Lives with her only child. | History of domestic abuse and divorce.<br><br>Child has behavioural difficulties.<br><br>Historic use of anti-depressants. No prior experience of therapy. | Anxiety<br><br>Also reports depression, and historic sleep problems. | 5 weeks (extended from 4 weeks at Lucy's request) | Baseline week D: Child stopped going to school.<br><br>Withdrew: Prior to commencing the intervention due to no longer having time available to engage |

| Participant | No. | Age | Gender | Ethnicity     | Current circumstances   | History  | Reported Difficulty   | Baseline | Notable events  |
|-------------|-----|-----|--------|---------------|---|--|---|----------|---|
| Kim         | 3   | 29  | Female | White British | Housewife (ex-teacher)<br><br>Single. Lives with her two children (ex-husband has children a couple of nights a week) | History of traumatic relationships.<br><br>Previous experience of CBT and counselling. | Depression<br><br>Also reports anxiety and symptoms of post-traumatic stress disorder | 4 weeks  | Weeks 2 and 3: Missed phone calls due to forgetting.<br><br>Week 4: Safeguarding issues with ex-husband. Children under her full-time care. Phone call focused on safeguarding.<br><br>Withdrew: During week 4 due to no longer having time available to engage |



| Participant | No. | Age | Gender | Ethnicity     | Current circumstances  | History   | Reported Difficulty   | Baseline | Notable events  |
|-------------|-----|-----|--------|---------------|--|---|---|----------|---|
| Rebecca     | 6   | 34  | Female | White British | Cleaner<br><br>Married. Lives with her husband and two children. | Father was an alcoholic.<br><br>Experienced domestic and sexual abuse, as well as a period of homelessness.<br><br>Currently on stable dose of anti-depressant. Previous experience of "Psychological Skills for Life" group. | Bi-Polar<br><br>Also reports depression, anxiety, episodes of psychosis, and fibromyalgia since age 14. | 3 weeks  | Week 5: Phone call with alternative Assistant Psychologist due to annual leave.<br><br>Week 6: Lost access to child benefits. Had to take up secondary job. Phone call cancelled due to staff sickness.<br><br>Withdrew: During week 7 due to no longer having time available to engage |

### **3.1.2. Quantitative Outcomes.**

Two of the non-completers (Rebecca and Kim) experienced consistent reliable change during their involvement in the intervention; both showing consistent reliable improvement in well-being in week three. One participant (Rebecca) then went on to experience consistent reliable improvement in psychological flexibility prior to a consistent reliable deterioration in symptomatology that co-occurred with a visual, but non-significant, reduction in well-being. No participant showed reliable change in life-functioning. Only one non-completer (Rebecca) completed the mid-intervention outcome measures, which showed clinically significant improvement on the AAQ-II, with reliable change on both the CompACT (improvement) and DASS-21 depression subscale (deterioration).

Due to variations in the number of weeks completed, calculation of percentage improvement was not suitable. However, visual analysis and application of PND criteria (Table 32) to the time-series graphs (Figure 26) of the three non-completers that commenced the intervention indicates that for two participants (Kim and Rebecca) it had minimal efficacy in improving psychological flexibility and well-being, but for one participant (Jake) it led to minimal deterioration of well-being. One participant (Rebecca) experienced minimal deterioration in symptomatology. Two participants (Kim and Rebecca) experienced minimal efficacy in the measure of life-functioning, towards improvement and deterioration respectively. Due to the small number of time points, such results need to be interpreted with caution.

Table 32

*Time Series PND Outcomes and Interpretations for Non-Completers*

|                       |              | Jake                  | Kim                 | Rebecca               |
|-----------------------|--------------|-----------------------|---------------------|-----------------------|
| Number of Time Points |              | 3                     | 3                   | 6                     |
| CompACT               | Improved     | 0                     | 2                   | 3                     |
|                       | Deteriorated | 0                     | 1                   | 1                     |
|                       | Overall      | Not effective         | Minimally effective | Minimally effective   |
| MHC-SF                | Improved     | 1                     | 2                   | 4                     |
|                       | Deteriorated | 2                     | 1                   | 2                     |
|                       | Overall      | Minimal deterioration | Minimally effective | Minimally effective   |
| DASS-21               | Improved     | 0                     | 1                   | 3                     |
|                       | Deteriorated | 1                     | 1                   | 1                     |
|                       | Overall      | Not effective         | Not effective       | Minimal deterioration |
| SAS-SR-M              | Improved     | 2                     | 2                   | 0                     |
|                       | Deteriorated | 0                     | 0                   | 4                     |
|                       | Overall      | Not effective         | Minimally effective | Minimal deterioration |

*Note.* CompACT = Comprehensive Assessment of Acceptance and Commitment Therapy Processes; DASS-21 = Depression, Anxiety, and Stress Scale – 21; MHC-SF = Mental Health Continuum – Short Form; SAS-SR-M = Social Adjustment Scale –Self-Report – Modified.

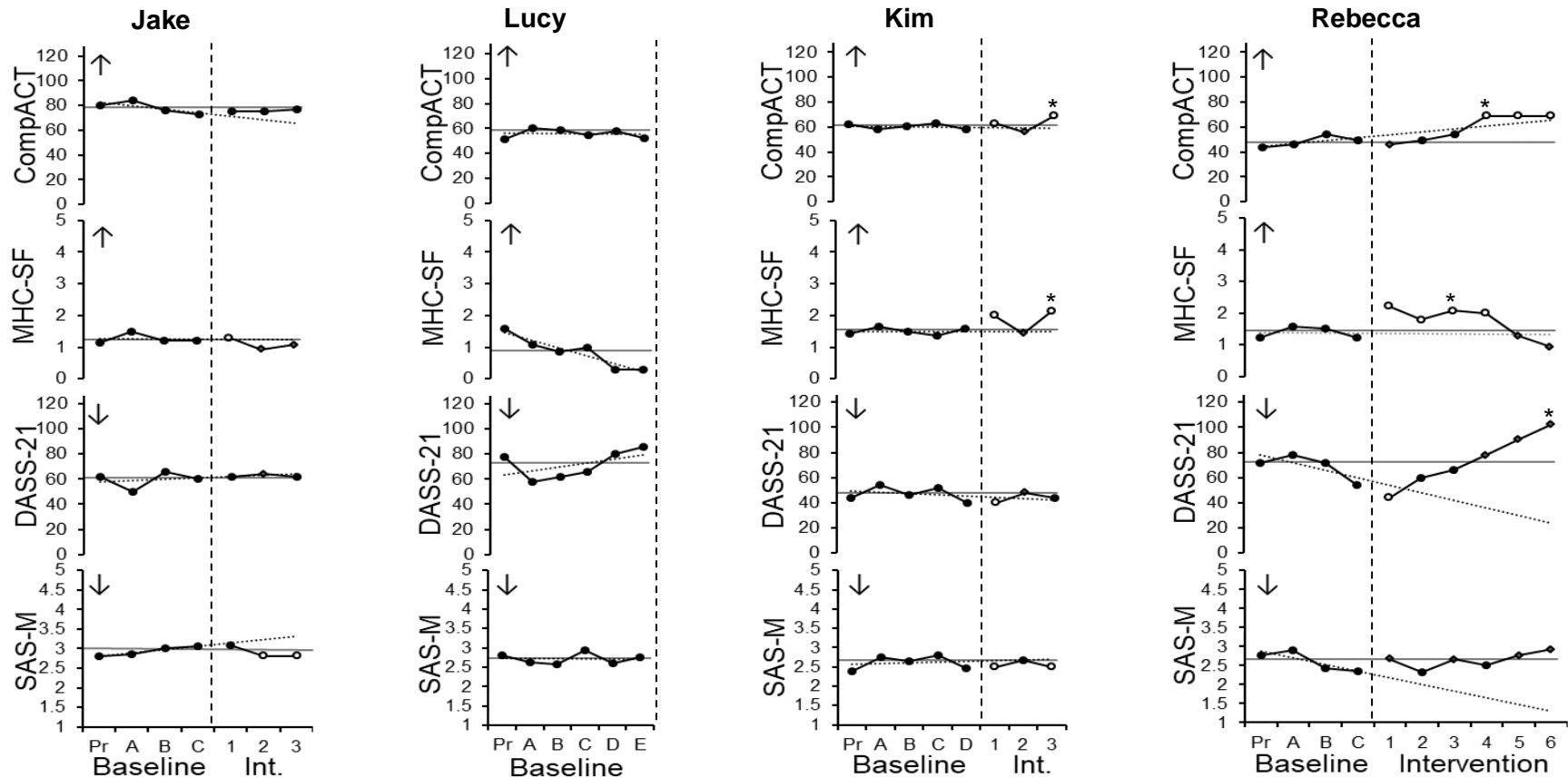


Figure 26. Weekly Scores of Non-Completers over Baseline and Intervention; ● Total scores; — Baseline median; ---- Predicted trendline; ○ Scores meeting dual criterion indicating improvement; ◆ Scores meeting dual criterion indicating decline; X Life event; \* First score meeting consistent reliable change criteria; Pr = Pre-intervention; A-F = Baseline time-points; 1-10 = Intervention time-points; Po = Post-intervention; Arrows indicate direction of improvement; CompACT = Comprehensive Assessment of Acceptance and Commitment Therapy Processes; DASS-21 = Depression, Anxiety, and Stress Scale – 21; MHC-SF = Mental Health Continuum – Short Form; SAS-SR-M = Social Adjustment Scale –Self-Report – Modified

### **3.1.3. Change Interviews.**

Interviews were also conducted with the three participants who had commenced the intervention prior to their withdrawal (Table 33). The results indicated that two of participants (Kim and Rebecca) found the intervention useful, but did not feel their outcomes had improved due to external life events and/or not giving it enough time. One participant (Jake) felt that the intervention was unhelpful and had, in combination with the completion of the outcome measures, made things worse.

Whilst all three participants felt that the intervention had prompted them to think more about mindfulness and/or their thoughts and feelings, two participants (Jake and Rebecca) reported that it was helpful in how it prompted them to access other resources such as mindfulness books or discussing things with their partner. All participants felt the guided phone calls were helpful, but one participant (Jake) felt the phone calls were limited in their utility due to the contact not being face-to-face and the lack of experience of the AP. Another participant (Rebecca) also reported that she felt her difficulties were too severe to be impacted by the intervention.

All participants raised concerns about the language used within the self-help book, alongside difficulties in completing the chapters in the allotted time, and all gave recommendations on how to improve its accessibility. All participants, including the individual who withdrew prior to commencing the intervention (Lucy), requested the remainder of the self-help book to read in their own time.

Table 33

*Change Interviews of Non-Completers*

|                              | Jake   | Kim  | Rebecca <sup>a</sup>  |
|------------------------------|--|--|---|
| Was the intervention useful? | "I didn't because I withdrew from it...It didn't work for me"  | "Yes, in terms of understanding my thought processes" - life factors prevented it being helpful                                      | Yes – Made to see things differently                                      |
| Any changes experienced?     | "[depression] increased...levels of anxiety got worse...my quality-of-life diminishes"                                     | "I didn't really feel that there was an improvement" – "At times I've felt...[the depression has] reduced...I don't know"            | No change   |
| Attributions                 | Intervention and research components "generates anxiety [and] pressure"  | "If things had gone to plan...I would have had time to do the material properly" – "I don't feel like the material has had a chance" | Prompted discussions with husband about mental health, which was helpful. |
|                              | "My deterioration wasn't all about...engaging with this" – "I wasn't in a position to utilise the material to help myself" | Any negative outcomes were "definitely not the material...my life circumstances have done that I think"                              | Felt intervention was helpful but not enough to change things.            |
|                              | Prompted reading "books that I've already read around Buddhism...getting some positive things from those"                  |  |   |

|                 | Jake  | Kim   | Rebecca <sup>a</sup>  |
|-----------------|---|---|---|
| Helpful Aspects | <p>“Helped focus on some things that had helped...in the past about mindfulness, acceptance” – “helped going back to some books...I’ve already read around Buddhism... getting some positive things from those”</p> | <p>“Where you list your painful thoughts, I thought that was useful” – “showed me that everything comes down to self-worth for me”</p> <p>“That was the best bit, just to break down what’s actually going on, so that I can understand it”</p> | <p>Mindfulness and helping make connections between thoughts and feelings</p> <p>Prompted discussions with husband.</p> |

|                   | Jake   | Kim  | Rebecca <sup>a</sup>   |
|-------------------|--|--|--|
| Unhelpful Aspects | <p>“Restrictions of it being research...very strict [time] parameters...generates anxiety [and] pressure”</p> <p>“Establishing the baseline” – “doing questionnaires...[with] no supportive content” – “illustrating that you’re not in a good place”</p> <p>“how the content was written... prescriptive...patronising” – “if you weren’t...having any positive outcomes, it was...suggesting... you’re not doing it properly”</p> <p>“difficulty about how some of [Buddhism] has been interpreted...diluting it and making it a bit more clinical”</p> <p>“Probably wasn’t the right time for me to engage in that type of intervention”</p> <p>“only given small chunks at a time...I had no idea what was next, which ...I had difficulty with”</p> | <p>“Felt like work I had to do” - “I did feel guilty for not being able to do the material”</p> <p>“It’s quite philosophical and I think it’s quite hard to understand”</p> <p>“quite repetitive” – “I found it frustrating”</p> <p>“I was thinking I can’t keep up”</p> | <p>Unable to impact experienced difficulties – only “scratched the surface”</p> <p>Week two did not feel relevant and too academic</p> <p>Struggled to do mindfulness due to having to read at same time.</p> <p>Struggled to complete on time</p> |



|                  | Jake   | Kim  | Rebecca <sup>a</sup>  |
|------------------|--|--|---|
| Guided component | <p>“not really the same as engaging in proper psychotherapy”</p> <p>“I need to be working with someone that’s got...quite a lot of experience. [AP] is quite a young practitioner”</p> <p>“being able to engage with someone to talk to them about it...that was positive and it was helpful” – “[AP] was supportive and helpful”</p> <p>“In terms of it really helping me move forward or helping me overcome stuff...there wasn’t really much there”</p> | <p>“I found that quite useful, just to bounce ideas off”</p> <p>“I kept missing them...I don’t think we talked too much about the material, it was more just...this is what is going on...I’d been to a court hearing”</p> | <p>Good to have someone to listen.</p> <p>Best part of intervention</p> |

|             | Jake  | Kim  | Rebecca <sup>a</sup>  |
|-------------|---|--|---|
| Suggestions | <p>“There should be some flexibility about the timescales at which it takes place, and that should be based on the client’s needs”</p> <p>Consider changing the “timescales and about the questionnaires”</p> <p>Amend language</p> | <p>“It needs to be made accessible to people, audio, video, condensed down, very visual”</p> <p>Shorten introduction – “have methods of helping [readers] from the start”</p> <p>Reduce repetition – “It could do with being condensed a little bit”</p> | <p>Should only be used for those with milder presentations</p> <p>Audio versions of mindfulness exercises</p> <p>Make shorter and more concise – to improve engagement</p> <p>More time to read material before phone calls</p> |

*Note.* <sup>a</sup> Due to an audio-recording error where only half of conversation was captured, responses were extrapolated from interviewer’s replies to what Rebecca said.

### 3.2. Fidelity Checks

There was 100% inter-rater reliability between the scoring of the first and second author, therefore, there was no need to conduct coefficient kappa (Table 34). The median score achieved across all ratings was two, indicating that the guided support given during the intervention phase was likely adherent to the ACT model; therefore, lessening the chance that outcomes could be attributed to alternative therapeutic approaches.

Table 34

*Fidelity Checks of Guided Phone-Calls*

| Fidelity Question  | Extract One |   | Extract Two |   | Extract Three |   |
|--|-------------|---|-------------|---|---------------|---|
|  | A           | B | A           | B | A             | B |
| Was the recorded content of the discussions consistent with intended foci (as specified in the weekly scripts for the guided phone calls)? | 2           | 2 | 2           | 2 | 2             | 2 |
| Was any advice given that was inconsistent with the ACT model (e.g., thought challenging)? [Reverse scored]                                | 2           | 2 | 2           | 2 | 1             | 1 |
| Was the AP suitably flexible and responsive to issues raised by the participant?   | 2           | 2 | 2           | 2 | 2             | 2 |

*Note.* 0 = no; 1 = somewhat; 2 = yes; A = First author; B = Second Author; Scores of the second question are presented in reverse scored format to aid analysis, whereby higher scores indicate greater adherence.

### 3.3. Pre-, Mid-, and Post-Intervention Scores

Analysis of reliable and CSC was conducted using RCI and CC criteria. To enable comparison to previous research, Tables 35 and 36 detail the pre-, mid-, and post-intervention scores of the three completers and the four non-completers respectively.

Table 35

*Pre-, Mid-, and Post-Intervention Scores of Completers*

|            | Amber |      |       | Ron   |      |        | Samuel |      |        | Average       |               |               |
|------------|-------|------|-------|-------|------|--------|--------|------|--------|---------------|---------------|---------------|
|            | Pre   | Mid  | Post  | Pre   | Mid  | Post   | Pre    | Mid  | Post   | Pre (SD)      | Mid (SD)      | Post (SD)     |
| MHC-SF     | 1.29  | 1.43 | 1.64  | 1     | 1.50 | 1.93** | 0.57   | 1.57 | 2.14** | 0.95 (0.36)   | 1.50 (0.07)   | 1.90 (0.25)   |
| DASS-21    | 50    | 42   | 58    | 66    | 38*  | 24**   | 62     | 48   | 32**   | 59.33 (8.33)  | 42.67 (5.03)  | 38.00 (17.78) |
| Depression | 22    | 14   | 26    | 16    | 14   | 6**    | 26     | 18   | 14*    | 21.33 (5.03)  | 15.33 (2.31)  | 15.33 (10.07) |
| Anxiety    | 4     | 10   | 12    | 16    | 10   | 6      | 14     | 12   | 4      | 11.33 (6.43)  | 10.67 (1.15)  | 7.33 (4.16)   |
| Stress     | 24    | 18   | 20    | 34    | 14** | 12**   | 22     | 18   | 14**   | 26.67 (6.43)  | 16.67 (2.31)  | 15.33 (4.16)  |
| SAS-SR-M   | 3.22  | 2.63 | 3.19  | 2.52  | 2.19 | 2.11   | 3.06   | 2.62 | 2.41*  | 2.93 (0.37)   | 2.48 (0.25)   | 2.57 (0.56)   |
| CompACT    | 73    | 84   | 75    | 60    | 92** | 94**   | 45     | 59   | 82**   | 59.33 (14.01) | 78.33 (17.21) | 83.67 (9.61)  |
| OE         | 31    | 42*  | 36    | 18    | 32** | 30**   | 16     | 23*  | 35**   | 21.67 (8.14)  | 32.33 (9.50)  | 33.67 (3.21)  |
| BA         | 15    | 9*   | 5*    | 15    | 25** | 26**   | 3      | 10*  | 16**   | 11.00 (6.93)  | 14.67 (8.96)  | 15.67 (10.50) |
| VA         | 27    | 33   | 34    | 27    | 35*  | 38**   | 26     | 26   | 31     | 26.67 (0.58)  | 31.33 (4.73)  | 34.33 (3.51)  |
| AAQ-II     | 31    | 33   | 26    | 31    | 32   | 35     | 47     | 20** | 28**   | 36.33 (9.24)  | 28.33 (7.23)  | 29.67 (4.73)  |
| CORE-OM    | 15.29 | -    | 17.06 | 21.18 | -    | 10.29* | 17.94  | -    | 17.06  | 18.14 (2.95)  | -             | 14.80 (3.91)  |

*Note.* \* indicate reliable change from pre-intervention time point; \*\* indicates clinically significant change from pre-intervention time point; SD = Standard Deviation; MHC-SF = Mental Health Continuum – Short Form; DASS-21 = Depression, Anxiety, and Stress Scale – 21; SAS-SR-M = Social Adjustment Scale – Self-Report – Modified; CompACT = Comprehensive Assessment of Acceptance and Commitment Therapy Processes; OE = Openness to Experience; BA = Behavioural Awareness; VA = Valued Action; AAQ-II = Acceptance and Action Questionnaire – II; CORE-OM: Clinical Outcomes in Routine Evaluation – Outcome Measure.

Table 36

*Pre- and Mid-Intervention Scores of Non-Completers*

|            | Jake  | Lucy  | Kim   | Rebecca |      |
|------------|-------|-------|-------|---------|------|
|            | Pre   | Pre   | Pre   | Pre     | Mid  |
| MHC-SF     | 1.14  | 1.57  | 1.43  | 1.21    | 1.29 |
| DASS-21    | 62    | 78    | 44    | 72      | 90   |
| Depression | 32    | 28    | 14    | 20      | 32*  |
| Anxiety    | 12    | 20    | 12    | 22      | 22   |
| Stress     | 18    | 30    | 18    | 30      | 36   |
| SAS-SR-M   | 2.81  | 2.82  | 2.39  | 2.77    | 2.77 |
| CompACT    | 80    | 51    | 62    | 44      | 69*  |
| OE         | 26    | 15    | 24    | 6       | 30** |
| BA         | 22    | 23    | 9     | 8       | 15*  |
| VA         | 32    | 13    | 29    | 30      | 24   |
| AAQ-II     | 36    | 35    | 45    | 47      | 28** |
| CORE-OM    | 25.59 | 23.82 | 14.71 | 22.94   | -    |

*Note.* \* indicate reliable change from pre-intervention time point; \*\* indicates clinically significant change from pre-intervention time point; SD = Standard Deviation; MHC-SF = Mental Health Continuum – Short Form; DASS-21 = Depression, Anxiety, and Stress Scale – 21; SAS-SR-M = Social Adjustment Scale – Self-Report – Modified; CompACT = Comprehensive Assessment of Acceptance and Commitment Therapy Processes; OE = Openness to Experience; BA = Behavioural Awareness; VA = Valued Action; AAQ-II = Acceptance and Action Questionnaire – II; CORE-OM: Clinical Outcomes in Routine Evaluation – Outcome Measure.

### 3.4. Analysis of Average Percentage Improvements

Whilst only the average percentage improvements were reported in the journal article, individual percentage improvements were also calculated. These are detailed in Table 37.

Table 37

*Percentage Improvements*

|            | Amber   | Ron    | Samuel | Average |
|------------|---------|--------|--------|---------|
| MHC-SF     | 27.13   | 93.00  | 275.44 | 131.86  |
| DASS-21    | -16.00  | 63.64  | 48.39  | 32.01   |
| Depression | -18.18  | 62.50  | 46.15  | 30.16   |
| Anxiety    | -200.00 | 63.50  | 71.43  | -22.02  |
| Stress     | 16.67   | 64.71  | 36.36  | 39.25   |
| SAS-SR-M   | 0.93    | 16.27  | 21.24  | 12.81   |
| CompACT    | 2.74    | 56.67  | 82.22  | 47.21   |
| OE         | 16.13   | 66.67  | 118.75 | 67.18   |
| BA         | -66.67  | 73.33  | 433.33 | 146.67  |
| VA         | 25.93   | 40.74  | 19.23  | 28.63   |
| AAQ-II     | 16.13   | -12.90 | 40.43  | 14.55   |
| CORE-OM    | -11.58  | 51.42  | 4.91   | 14.92   |

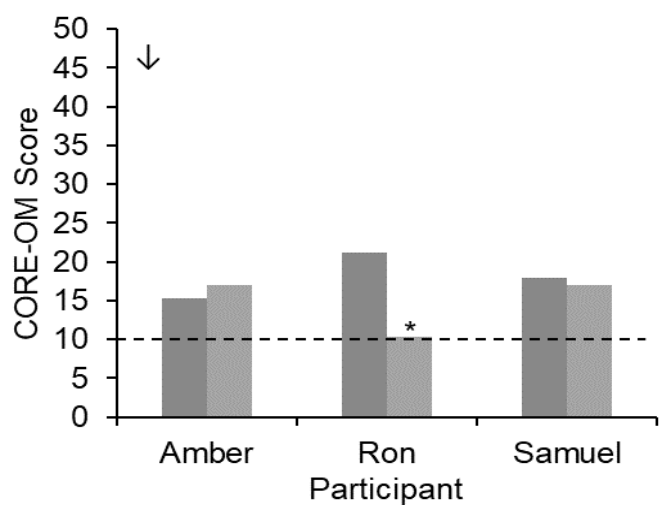
*Note.* Values given as percentages with scores reversed so that positive values indicate improvement and negative values indicate decline; SD = Standard Deviation; MHC-SF = Mental Health Continuum – Short Form; DASS-21 = Depression, Anxiety, and Stress Scale – 21; SAS-SR-M = Social Adjustment Scale – Self-Report – Modified; CompACT = Comprehensive Assessment of Acceptance and Commitment Therapy Processes; OE = Openness to Experience; BA = Behavioural Awareness; VA = Valued Action; AAQ-II = Acceptance and Action Questionnaire – II; CORE-OM: Clinical Outcomes in Routine Evaluation – Outcome Measure

### 3.5. Additional Results of the CORE-OM

The CORE-OM was implemented at pre- and post-intervention time points as per standard service protocol. Whilst logistical limitations meant that the CORE-OM data from the recruiting service could not be accessed, the results are detailed here to enable future comparison to such client groups and alternative interventions.

The pre- and post-intervention outcomes on the CORE-OM for the three main participants are displayed in Figure 27. All participants (including those who withdrew) fell within the clinical range at the pre-intervention time point. Application of RCI and CC criteria to the outcomes of the three completers indicates that only one participant (Ron) showed reliable change towards improvement. No participant moved outside of the clinical range. The average

percentage improvement was 14.92%. A break-down of the scores, including means and SDs, is detailed in Extended Paper 3.3.



*Figure 27.* CORE-OM Scores at Pre- and Post-Intervention Time Points; ■ Pre; ■ Post; \* indicates reliable change from previous time-point; + indicates reliable change from pre-intervention time-point; - - - indicates clinical cut-offs; Arrows indicate direction of improvement; CORE-OM = Clinical Outcomes in Routine Evaluation – Outcome Measure

**3.6. Additional Results of ACT Subscales**

Analysis of the individual ACT subscales (Openness to Experience [OE], Behavioural Awareness [BA], Valued Action [VA]) was conducted to further investigate underlying ACT processes. Pre-, mid-, and post-intervention scores of each subscale for the three main participants are displayed in Figure 28. Application of RCI and CC criteria indicate that all participants experienced reliable improvements in OE, finishing outside of the clinical range. Results in BA are more variable, with two participants (Ron and Samuel) showing clinically significant improvements, but one participant (Amber) showing significant decline. Only one participant (Ron) showed clinically reliable improvement in VA. Table 38 details the average percentage change observed on each subscale, showing BA to have displayed the largest average percentage improvement, then OE, with VA showing the smallest average percentage improvement.

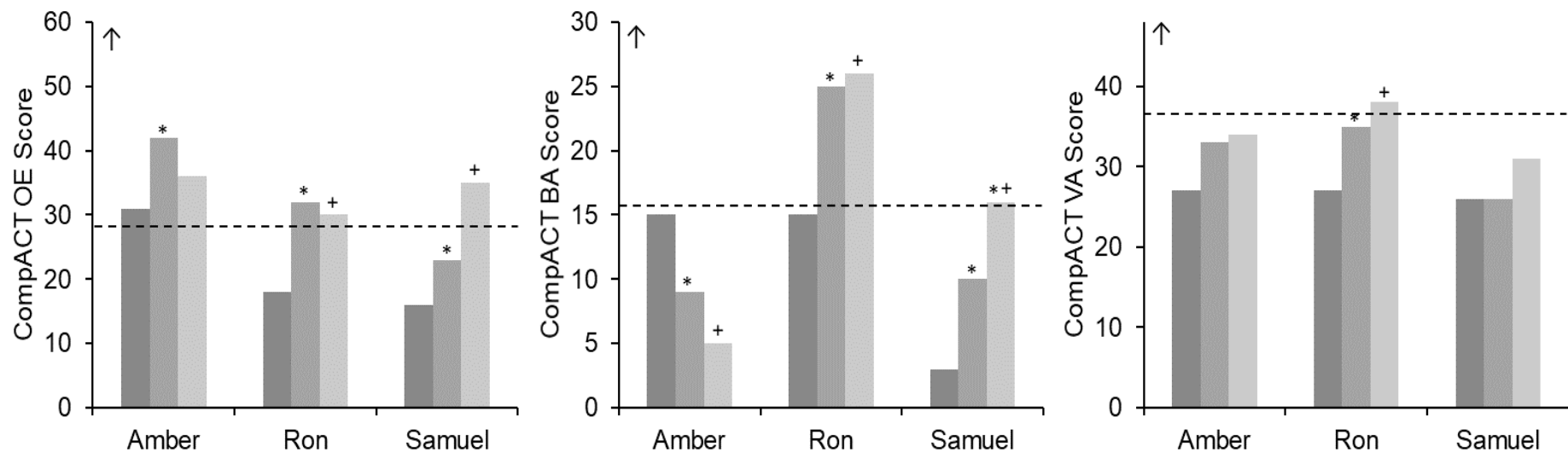


Figure 28. CompACT Subscale Scores at Pre-, Mid-, and Post-Intervention Time Points; ■ Pre; ■ Mid; ■ Post; \* indicates reliable change from previous time-point; + indicates reliable change from pre-intervention time-point; - - - indicates clinical cut-offs; Arrows indicate direction of improvement; CompACT = Comprehensive Assessment of Acceptance and Commitment Therapy Processes; OE = Openness to Experience; BA = Behavioural Awareness; VA = Valued Action

Table 38

*Average Percentage Improvements in CompACT Subscales*

| Outcome | Percentage Improvement |
|---------|------------------------|
| OE      | 67.18%                 |
| BA      | 146.67%                |
| VA      | 28.63%                 |

Note. CompACT = Comprehensive Assessment of Acceptance and Commitment Therapy Processes; Openness to Experience; BA = Behavioural Awareness; VA = Valued Action



Figures 29 to 33 display participants' scores on each of the CompACT subscales over time in relation to the ACT processes likely to be targeted each week. Application of PND criteria (Table 39) indicates that the intervention had the greatest efficacy within the subscale of OE. Three participants (Amber, Samuel, and Jake) indicated minimal to high efficacy, and a further two participants (Ron and Rebecca) visually appeared to experience improvement which was not captured due to the improvement occurring prior to the intervention starting, therefore, impacting the trend of the baseline. Again, BA showed the most variable results. Two participants (Amber and Rebecca) showed minimal to moderate deterioration on this subscale, whilst one participant (Kim) indicated high efficacy, and two participants (Ron and Samuel) visually appeared to improve which again was not captured due to improvements occurring pre-intervention. Finally, VA showed the least level of change with two participants (Amber and Samuel) indicating minimal to moderate efficacy, and visually appearing to stay close to baseline levels for all participants. Below details observations of how each subscale varied over the intervention in relation to the ACT processes that each chapter was likely to target.

### **3.6.3. Openness to Experience.**

Given that most weeks included content likely to tap into the OE outcomes (70%), it is unsurprising that efficacy is indicated on the OE subscale. Baseline observations indicate that two participants (Ron and Rebecca) experienced reliable improvements in OE prior to the intervention commencing. Within the first two weeks the impact of the intervention on OE appears minimal, with trends upwards occurring on or after the third week. This may relate to the content of the first two weeks being mostly introductory, or a delayed effect of the intervention's commencement. For the four participants who completed more than three weeks of the intervention (Amber, Ron, Rebecca, and Samuel), scores on the OE subscale appear to peak within the fourth or fifth week before levelling off, which may link to the self-help book's shift towards the other

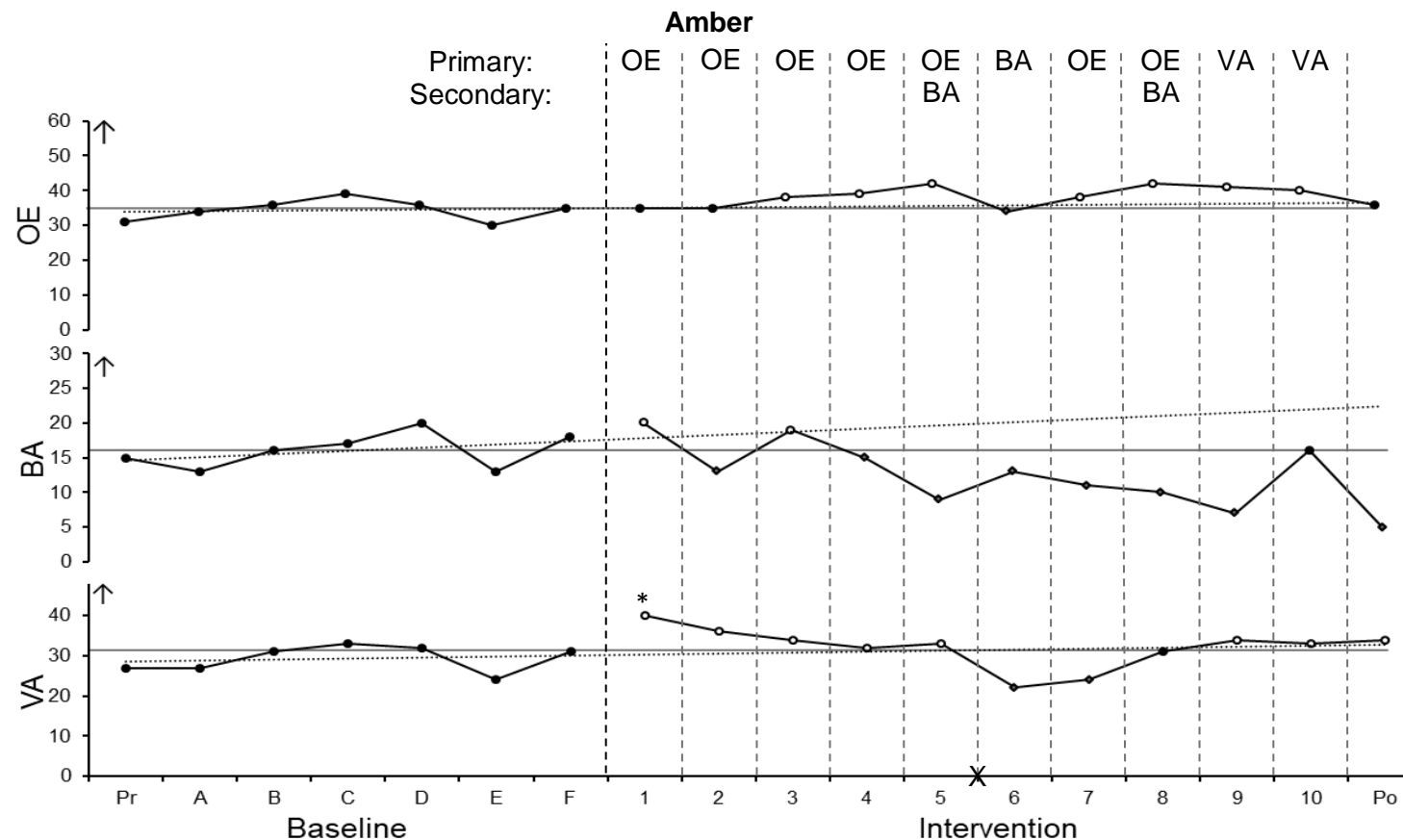
processes. However, one participant (Samuel) showed a further improvement in OE in the final three time-points, following a life event, where it was mostly VA that was being targeted. The impact of negative and positive life events can also be observed in two participants (Amber and Ron) respectively. Two participants experienced consistent reliable improvement during the intervention; Ron in week five, and Samuel in week nine. Across the three participants who completed the intervention, an average percentage improvement of 67.18% was observed on the OE subscale.

#### **3.6.4. Behavioural Awareness.**

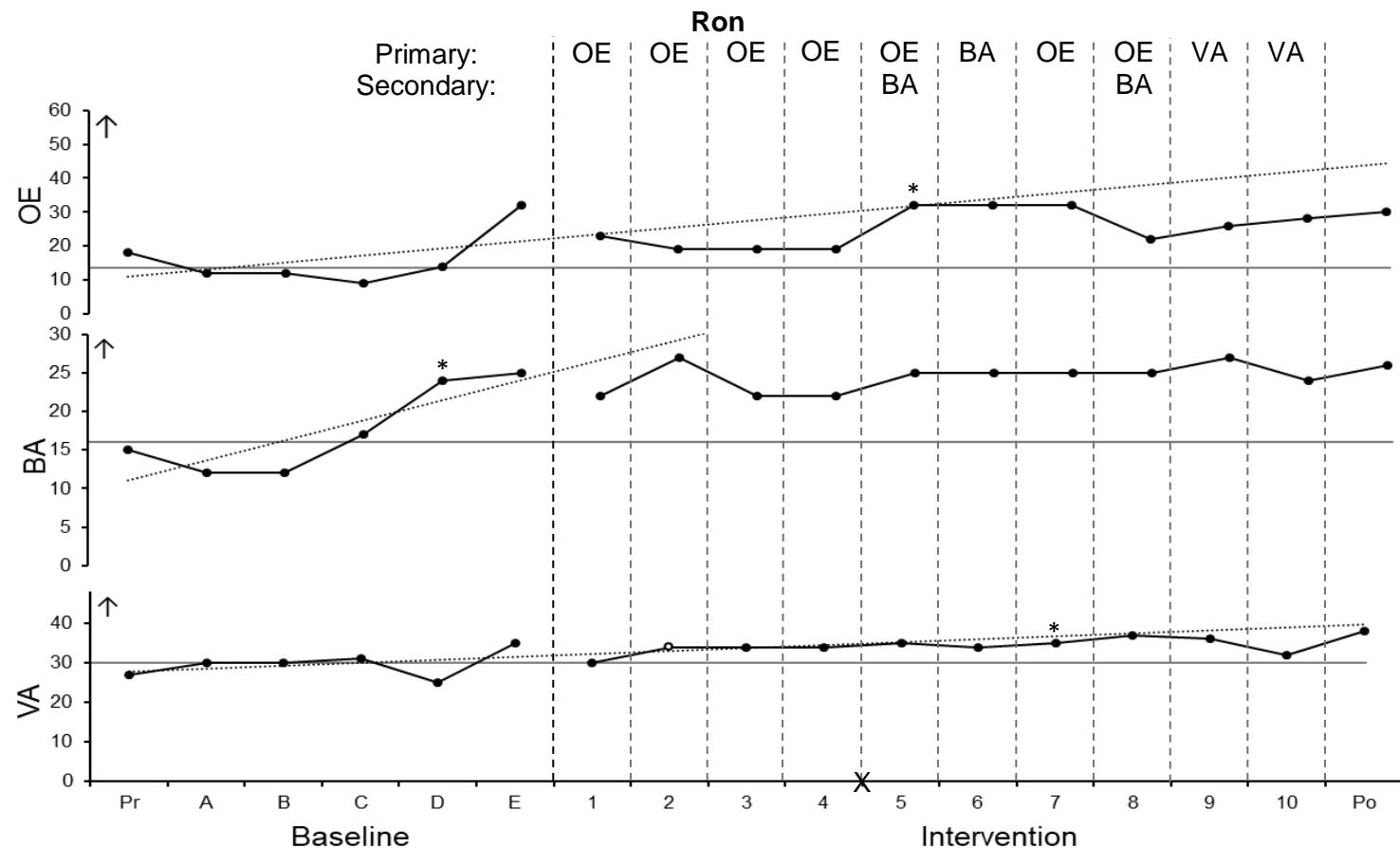
Content that was likely to target processes captured by the BA subscale was received by participants at three time-points (Weeks 5, 6, and 8). Prior to the intervention commencing, two participants (Ron and Samuel) experienced consistent reliable change towards improvement, and one participant (Lucy) experienced consistent reliable deterioration. Following commencement of the intervention, the scores achieved at the final baseline time-point appear to be mostly maintained, apart from for one participant (Amber) where there is an observable trend towards decline. Again, one participant (Samuel) showed a noticeable improvement in BA in the final three time-points, following a life event, where it was mostly VA that was being targeted. Only one participant (Rebecca) showed consistent reliable change during the intervention, which was in week four towards improvement. When considering the individual weeks where BA was targeted, there is no visual indication that they had a direct impact on BA as expected. Across the three participants who completed the intervention, an average percentage improvement of 146.67% was observed on the BA subscale. This was the largest percentage improvement across the three subscales, despite one participant's (Amber) trend towards decline.

### **3.6.3. Valued Action.**

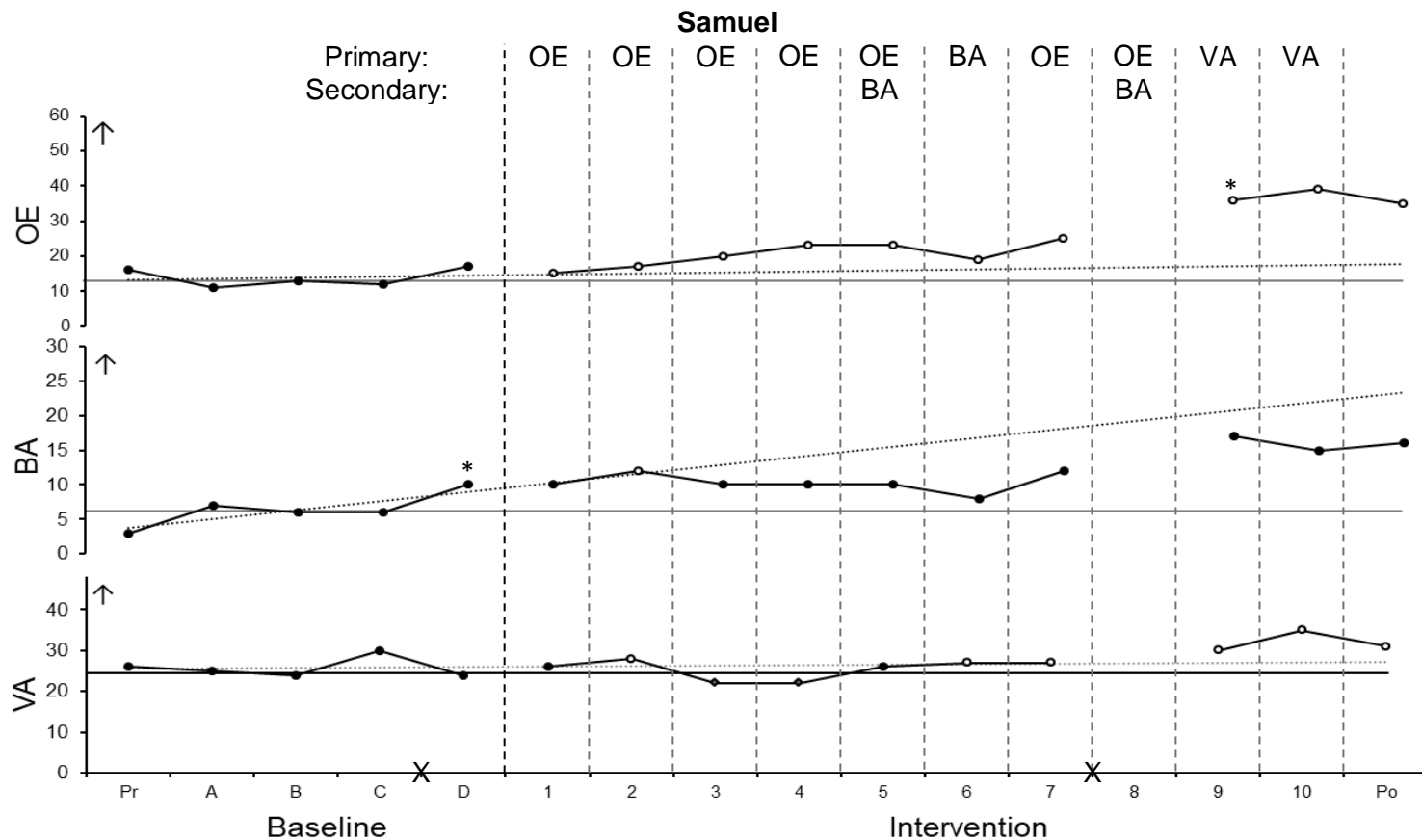
Content that would target the VA subscale is less present during the intervention, only occurring in the final two weeks, therefore, it is unsurprising that the least amount of efficacy was found on this subscale. During the baselines, VA appeared mostly stable, however, two participants (Lucy and Rebecca) did experience reliable change towards improvement and decline respectively. Upon commencement of the intervention, all participants experienced a relatively stable trend in VA scores, apart from one participant (Amber) who experienced an initial consistent reliable improvement before trending towards decline when she had a dip in outcomes in week six following a negative life event. Only one other participant (Ron) experienced consistent reliable improvement, which was in week seven following a gradual upwards trend, and another participant (Samuel) also experienced reliable change in week ten, however, this was not sustained. When considering the two weeks where VA was targeted, there is no visual indication that they had a direct impact on VA, apart from for one participant (Samuel) where there was an apparent improvement. It is unclear if this relates to the content of the chapters, or to the impact of the life event that Samuel experienced in week eight, as the pattern is similar across all three subscales. Across the three participants who completed the intervention, an average percentage improvement of 28.63% was observed on the VA subscale.



*Figure 29. Amber's Weekly CompACT Subscale Scores over Baseline and Intervention; ● Total scores; — Baseline median; ---- Predicted trendline; ○ Scores meeting dual criterion indicating improvement; ♦ Scores meeting dual criterion indicating decline; X Life event; \* First score meeting consistent reliable change criteria; OE = Openness to Experience; BA = Behavioural Awareness; VA = Valued Action; Pr = Pre-intervention; A-F = Baseline time-points; 1-10 = Intervention time-points; Po = Post-intervention; Arrows indicate direction of improvement*



*Figure 30. Ron's Weekly CompACT Subscale Scores over Baseline and Intervention; ●—Total scores; —Baseline median; ----Predicted trendline; ○ Scores meeting dual criterion indicating improvement; ◆ Scores meeting dual criterion indicating decline; X Life event; \* First score meeting consistent reliable change criteria; OE = Openness to Experience; BA = Behavioural Awareness; VA = Valued Action; Pr = Pre-intervention; A-F = Baseline time-points; 1-10 = Intervention time-points; Po = Post-intervention; Arrows indicate direction of improvement*



*Figure 31. Samuel's Weekly CompACT Subscale Scores over Baseline and Intervention; ● Total scores; — Baseline median; --- Predicted trendline; ○ Scores meeting dual criterion indicating improvement; ◆ Scores meeting dual criterion indicating decline; X Life event; \* First score meeting consistent reliable change criteria; OE = Openness to Experience; BA = Behavioural Awareness; VA = Valued Action; Pr = Pre-intervention; A-F = Baseline time-points; 1-10 = Intervention time-points; Po = Post-intervention; Arrows indicate direction of improvement*

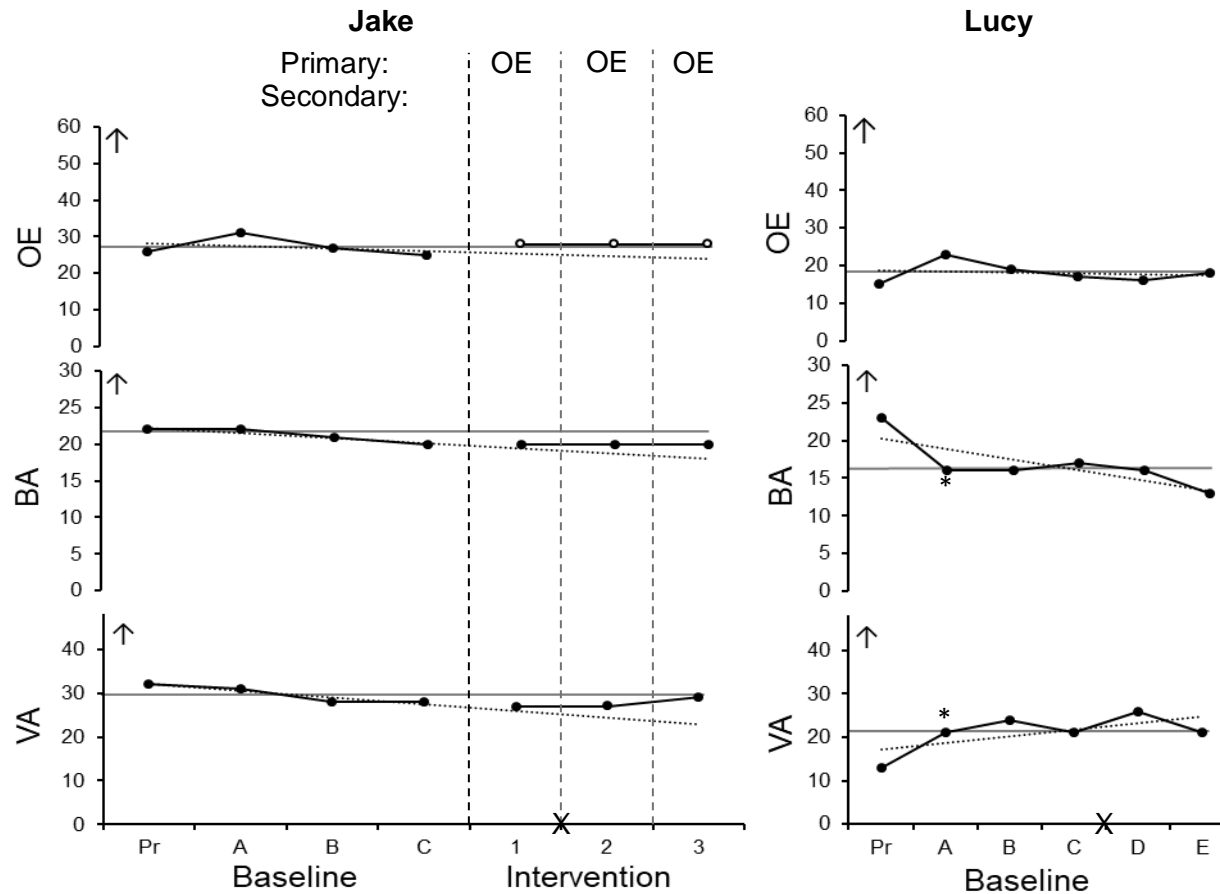


Figure 32. Jake and Lucy's Weekly CompACT Subscale Scores over Baseline and Intervention; —●— Total scores; — Baseline median; ---- Predicted trendline; o Scores meeting dual criterion indicating improvement; ♦ Scores meeting dual criterion indicating decline; OE = Openness to Experience; BA = Behavioural Awareness; VA = Valued Action; X Life event; \* First score meeting consistent reliable change criteria; Pr = Pre-intervention; A-F = Baseline time-points; 1-10 = Intervention time-points; Po = Post-intervention; Arrows indicate direction of improvement

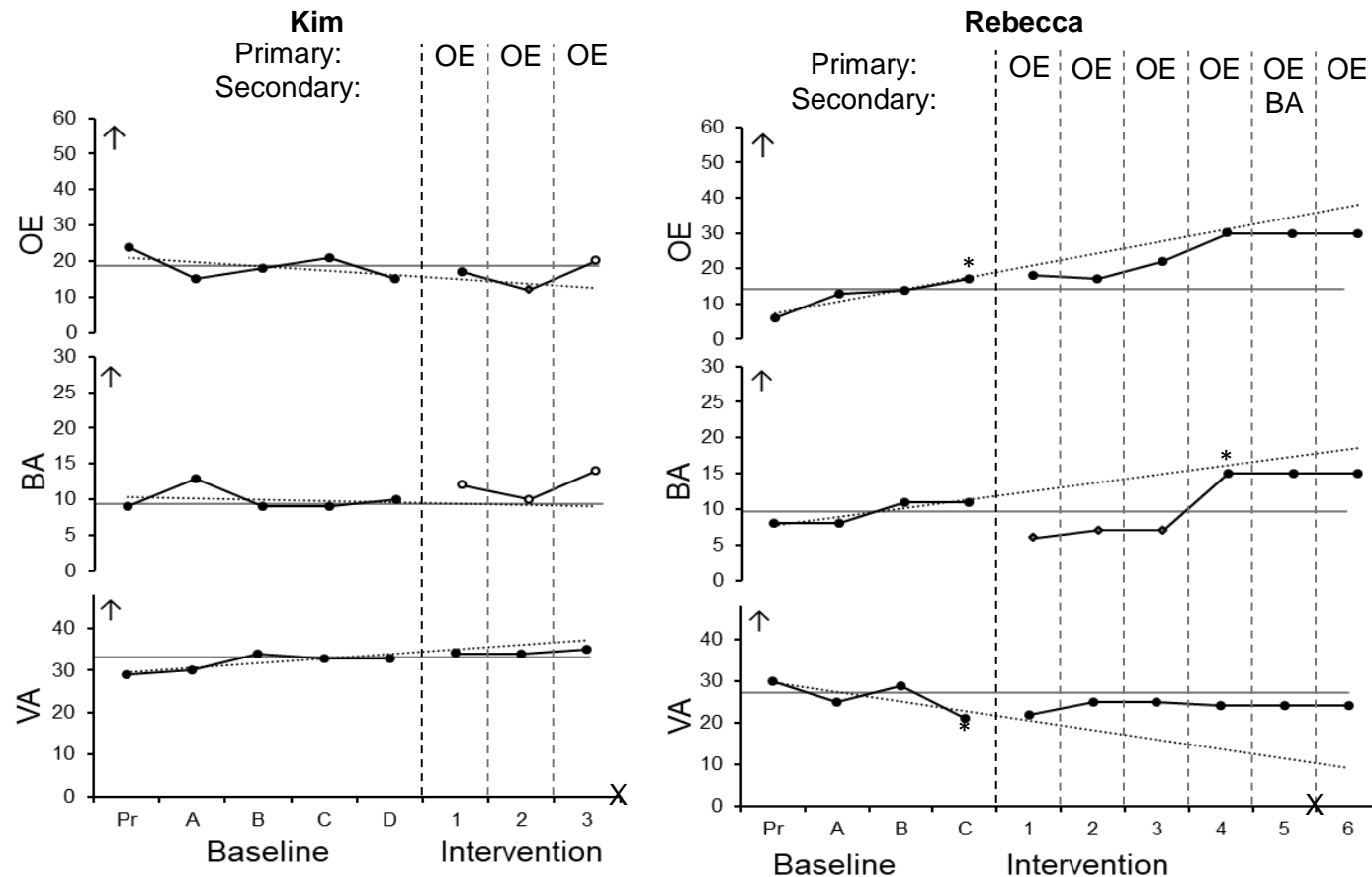


Figure 33. Kim and Rebecca's Weekly CompACT Subscale Scores over Baseline and Intervention; ● Total scores; — Baseline median; ---- Predicted trendline; ○ Scores meeting dual criterion indicating improvement; ◇ Scores meeting dual criterion indicating decline; X Life event; \* First score meeting consistent reliable change criteria; OE = Openness to Experience; BA = Behavioural Awareness; VA = Valued Action; Pr = Pre-intervention; A-F = Baseline time-points; 1-10 = Intervention time-points; Po = Post-intervention; Arrows indicate direction of improvement



Table 39

*Time Series PND Outcomes and Interpretations for CompACT Subscales*

|                        | <u>Completers</u>      |               |                     |                  | <u>Non-Completers</u> |                       |
|------------------------|------------------------|---------------|---------------------|------------------|-----------------------|-----------------------|
|                        | <u>Amber</u>           | <u>Ron</u>    | <u>Samuel</u>       | <u>Jake</u>      | <u>Kim</u>            | <u>Rebecca</u>        |
| Number of Time Points: | 11                     | 11            | 10                  | 3                | 3                     | 6                     |
| OE Improved            | 7                      | 0             | 10                  | 3                | 1                     | 0                     |
| Deteriorated           | 1                      | 0             | 0                   | 0                | 1                     | 0                     |
| Overall                | Minimally effective    | Not effective | Highly effective    | Highly effective | Not effective         | Not effective         |
| BA Improved            | 2                      | 0             | 1                   | 0                | 3                     | 0                     |
| Deteriorated           | 8                      | 0             | 0                   | 0                | 0                     | 3                     |
| Overall                | Moderate deterioration | Not effective | Not effective       | Not effective    | Highly effective      | Minimal deterioration |
| VA Improved            | 8                      | 1             | 6                   | 0                | 0                     | 0                     |
| Deteriorated           | 2                      | 0             | 2                   | 0                | 0                     | 0                     |
| Overall                | Moderately effective   | Not effective | Minimally effective | Not effective    | Not effective         | Not effective         |

*Note.* CompACT = Comprehensive Assessment of Acceptance and Commitment Therapy Processes; OE = Openness to Experience; BA = Behavioural Awareness; VA = Valued Action

### 3.7. Overall Synthesis

When considering all the results together, an overall synthesis of the findings can be considered. Greater levels of change are observed in well-being, then symptomatology, with life-functioning showing the least amount of change. Outcomes appear to be related to observed improvements in psychological flexibility, particularly OE and BA subscales, as supported by participants reporting that the intervention had changed how they thought about things. Positive outcomes were mostly attributed to the intervention; however, also included positive life-events and being prompted to access other sources of support. Negative outcomes were mostly attributed to external life events; however, two participants felt that the intervention was not able to impact their levels of difficulty, with one reporting that the combination of the intervention and research was making things worse.

Order of change across the four main measures for the three main participants indicates that consistent reliable change was first observed in psychological flexibility and symptomatology, followed by well-being. However, within those who withdrew, there is indication that two participants (Kim and Rebecca) experienced consistent reliable change in well-being first. They also experienced this prior to any reliable change in psychological flexibility.

More in-depth exploration of the subscales of the CompACT indicate that OE has the greatest level of change, followed by BA, with VA showing minimal change. OE appears to improve from the third week onwards, often showing consistent improvements from pre-intervention levels. BA is more variable with no distinct pattern, whilst VA appears to show consistency across the time-points; however, visually there do not appear to be correlations regarding the ACT processes being targeted each week. Also, all three subscales have been observed to experience consistent reliable change *prior* to the intervention starting, suggesting that observed outcomes may not be due to the intervention alone.

Positive feedback on the intervention consistently seemed to highlight how the self-help book helped participants to think about things differently,

prompted access to other sources of support, and the benefits of the guided phone calls. However, negative feedback included the language within the book being patronising and difficult to understand, with recommendations that the accessibility be improved.

### **3.8. Summary of Results for Each Participant**

Below details a narrative synthesis of each participant's outcomes, including that of individuals who withdrew from the study. Please refer to the Journal Paper, and sections 3.1. to 3.6. of the Extended Paper, for tabulated/graphed results.

#### **3.8.1. Jake (P1).**

Jake withdrew during week four of the intervention. At pre-intervention, Jake's scores fell within the clinical range on all measures. His three-week baseline showed no significant variations, with trends towards deterioration in measures of psychological flexibility and life-functioning. Within the change interview, Jake reported that the completion of the baseline outcome measures was reminding him how bad he felt and may have contributed towards this observed decline. Following commencement of the intervention, no significant changes in Jake's scores were observed in either direction across the three time-points. Application of PND criteria indicated minimal efficacy in improving life-functioning, but also minimal reduction in well-being. Whilst no reliable change was observed in psychological flexibility and its three subscales, application of PND criteria indicated maximum efficacy in improving OE. Jake stated that both the intervention and the research components had caused him to feel worse, but reflected that he felt that it was potentially not the right timing for him to engage in the process, and it had made him access other resources such as books about mindfulness and Buddhism, which he found helpful. Jake had been ill during the second week of the intervention and missed a phone call, however, did not attribute any change in outcome to this event. In week

three, Jake expressed anger that he had not been offered an additional phone call following him taking ill, and withdrew from the intervention a week later saying that he was struggling to keep up with the intervention schedule, and was concerned that the intervention was making him worse.

Within the change interview, Jake reflected that his low mood may have impacted his ability to engage in the intervention, however, did state that the intervention had prompted him to read other books on mindfulness, to which he attributed positive outcomes. He raised several concerns about the intervention and research process (see Table 33), but declined the offer to make a complaint. Jake asked to receive the remainder of the self-help book to read in his own time.

### **3.8.2. Lucy (P2).**

Lucy withdrew prior to the intervention commencing. At pre-intervention, Lucy's scores fell within the clinical range on all measures. Baseline scores of psychological flexibility and life-functioning showed no significant variability. However, within the psychological flexibility subscales in the second week, Lucy did experience consistent reliable improvement in VA, and consistent reliable deterioration in BA. Lucy experienced a reliable improvement in symptomatology in the first week of the baseline, however, this was not maintained and she showed a trend towards deterioration, which on closer inspection related to her levels of depression. Further to this, Lucy experienced an ongoing reliably significant deterioration in well-being from the second baseline week onwards. As Lucy opted to not commence the intervention, a change interview was not conducted and so attributions cannot be made. However, upon her withdrawal she stated that her child was refusing to attend school and she was being charged a fee for this, which was causing her stress and giving her no time to engage in the intervention/research process. Lucy opted to receive the self-help book to read in her own time.

### **3.8.3. Kim (P3).**

Kim withdrew during week four of the intervention. At pre-intervention, Kim's scores fell within the clinical range on all measures. Her four-week baseline showed no significant variations, with slight trends towards improvements in symptomatology. Upon commencement of the intervention, visual inspection of Kim's outcomes indicated a dip in all outcomes during week two, which was also observed in the CompACT subscales of OE and BA. Kim did not attribute this to anything specific during the change interview, however, did state that she felt that any negative outcomes were due to life-events rather than the intervention. Despite this dip, application of PND criteria suggests that the intervention had minimal efficacy in improving psychological flexibility (mostly relating to the BA subscale), well-being, and life-functioning. She also displayed reliably significant improvement in well-being after the third week of the intervention, but no reliable change on any of the other measures. This may reflect Kim's report that she found the intervention useful as it changed her understanding of her thoughts and feelings, but felt that its efficacy was limited by the impact of ongoing difficulties with her ex-partner. Within week four, Kim's ex-partner was stopped by authorities from having access to the children; this meant that she had full custody during the summer holidays and no longer felt able to dedicate the time required by the intervention/research. Therefore, she withdrew, but requested the self-help book to read in her own time.

Within the change interview, Kim reflected that she found it difficult to determine what to attribute her outcomes to. She stated that the phone calls would have been helpful if she had not forgotten them or been "diverted" by safe-guarding issues. Kim reflected that she felt the intervention sometimes "felt like work" and could be made more accessible through amendments to language, the addition of an audio component, and inclusion of exercises earlier on.

#### **3.8.4. Amber (P4).**

Amber completed the intervention. At pre-intervention, Amber's scores fell within the clinical range on all measures. During her seven-week baseline Amber showed a trend towards improvement in symptomatology, and experienced reliable improvements in psychological flexibility and well-being in the fourth week which returned to pre-intervention levels prior to the intervention commencing. Amber did not attribute this to any external event. Upon commencement of the intervention, visual inspection of her time-series graphs indicates that Amber experienced improvements in psychological flexibility (with reliable improvement in VA), well-being, and symptomatology, however, consistent reliable change was not indicated despite the RCI cut-off for the CompACT being breached three times (Weeks one, three, and ten). Following the mid-point of the intervention, deterioration on all four main measures (and OE and VA subscales) can be observed, with well-being and symptomatology both showing consistent reliable change. Amber attributed this deterioration to being made redundant at work. Following this event, outcomes began to trend back towards pre-intervention levels before the intervention ceased. This reflects Amber's reports that her mood had recovered since the redundancy. Application of PND criteria indicated no level of efficacy on any of the main measures.

Consideration of the AAQ-II showed a similar pattern to the CompACT with a dip in scores at the mid-intervention time point and no observed reliable change. However, by the post-intervention time point Amber's AAQ-II score had moved out of the clinical range; the only outcome measure to do so. Application of PND criteria on the CompACT subscales also showed a mixed picture, with minimal efficacy in OE, moderate efficacy in VA, and moderate deterioration in BA. Amber's CORE-OM score showed no reliable change.

Within the change interview, Amber stated that the intervention was limited in its efficacy as she felt she knew most of the content already; however, did reflect that the most helpful aspects were the guided phone calls and how the intervention prompted her to discuss her experiences with her housemate;

for example, her anxieties regarding social interactions. She attributed negative fluctuations to the loss of her job, but questioned whether she had coped better because of the intervention. She advised that the language of the self-help book needed amending to laymen's terms.

### **3.8.5. Ron (P5).**

Ron completed the intervention, and was the only participant to complete outcome measures via the post. At pre-intervention, Ron's scores fell within the clinical range on all measures. During his six-week baseline, there was no significant variability until the last time point, when reliable change was observed towards improvement of psychological flexibility (relating to reliable improvement in OE and BA) and symptomatology. Well-being and life-functioning also showed improvements but not to a reliable level. Ron did not attribute this improvement to anything, however, the resulting changes in trendline trajectories impacted the interpretation of all outcomes apart from well-being. Following the first week of the intervention, all scores on the main measures fell above/below the median baseline scores towards the direction of improvement. There was also a slight observable improvement in psychological flexibility and well-being following Ron gaining employment in week five, both of which had moved out of the clinical range. Reliable improvement was maintained on measures of psychological flexibility and symptomatology, and reliable improvement in well-being was observed in week ten. No reliable improvement was indicated on the measure of life-functioning. Observation of the CompACT subscales indicates consistent reliable improvement in OE in week five, and VA in week seven. Application of PND criteria indicated high efficacy within well-being outcomes, however, no efficacy was found on the other outcomes due to the trajectories of the baseline trendlines. By the post-intervention time point, Ron had moved out of the clinical range on psychological flexibility, well-being, and symptomatology, but remained within the clinical range for life-functioning.

Unlike Ron's scores on the CompACT, his scores on the AAQ-II showed a trend towards deterioration, but with no significant changes observed. His score on the CORE-OM showed reliable improvement, but remained within the clinical range.

Within the change interview, Ron stated that he did not feel his anxiety levels had improved as the ACT intervention did not aim to target anxiety, but that he felt that things had improved in all other areas. He attributed these positive outcomes to a mixture of the intervention and gaining employment; he also reflected that his medication may have helped even though he had not experienced any recent changes in his dosage. Ron advised that he found the first chapter offensive, but had otherwise found the intervention informative and entertaining. Ron also stated that the intervention would not have been as effective without the phone calls, and expressed a wish that he had not missed so many.

#### **3.8.6. Rebecca (P6).**

Rebecca withdrew during week seven of the intervention. At pre-intervention, Rebecca's scores fell within the clinical range on all measures. Her four-week baseline showed no significant variations on the four main measures, however, trends towards improvement in psychological flexibility, symptomatology, and life-functioning. Closer inspection of the CompACT subscales indicates that in the final week of the baseline consistent reliable improvement was experienced in OE and consistent reliable deterioration was experienced in VA. Upon commencement of the intervention, Rebecca showed reliable clinical improvement in well-being which was sustained until week five when it appeared to return to baseline levels. Rebecca also showed reliable improvement in psychological flexibility, which occurred after the improvement in well-being, and was indicated by both the CompACT and the AAQ-II and appeared to relate to improvements in OE and BA in week four. Throughout the intervention, Rebecca's levels of symptoms showed a consistent trend towards deterioration, with reliable change indicated by the sixth week. No reliable



change was observed in her levels of life-functioning. Application of PND criteria indicated minimal efficacy towards improvement in well-being and psychological flexibility (despite minimal deterioration in BA), and minimal efficacy towards deterioration in symptomatology. Rebecca attributed the positive outcomes mostly to the intervention prompting her to discuss things more openly with her husband, however, she reflected that she did not feel the intervention alone was effective enough to impact her level of difficulty. She did not report any positive life events that may also had contributed to these improvements. Rebecca did not attribute negative outcomes to the intervention, but felt that the loss of child benefits probably had an impact. Rebecca had also had a phone call with a temporary AP during week five, and a period of sickness in week six, and it is unclear if these events were a causal factor.

During the change interview, Rebecca stated that she did not feel things had changed for her, yet remained positive about the intervention and highlighted that the phone calls were the “best part”. She advised that the intervention was better for milder presentations, and that adaptations were needed to make it more accessible.

#### **3.8.7. Samuel (P7).**

Samuel completed the intervention. At pre-intervention, Samuel's scores fell within the clinical range on all measures. During his five-week baseline, there was no significant variability apart from on the BA subscale towards improvement. However, scores trended towards deterioration in well-being and symptomatology on the final baseline week, which Samuel attributed to the break-up of his relationship. Samuel also mentioned that he had ceased his anti-depressant medication at this point but felt that it was such a low dose he did not feel it influenced outcomes. Upon commencement of the intervention, results remained variable with slight trends towards improvements on all main measures by the mid-intervention time point. At week seven Samuel reached consistent reliable improvement in psychological flexibility. During week eight, Samuel missed submitting his outcome measures following losing access to his

two youngest children. Following this, Samuel showed trends towards improvements in all measures, reaching consistent reliable improvement in OE in week nine, symptomatology in week ten, and well-being and life-functioning at post-intervention. Samuel attributed his experienced improvements mostly to the intervention, stating that it had helped him cope better with the negative life events, however, reflected that both life events had left him with more time to focus on himself, his dog, and his eldest son, and so this may also have improved his outcomes. Application of the PND criteria indicated moderate efficacy in improving psychological flexibility (relating to OE [moderate] and VA [minimal]), minimal efficacy in improving well-being and symptomatology, and no efficacy in improving life-functioning. By the post-intervention time point, Samuel had moved out of the clinical range on all main measures apart from life-functioning.

Samuel's scores on the AAQ-II did not reflect his scores on the CompACT, and showed the largest significant improvement at mid-intervention before a slight non-significant deterioration at post-intervention despite still falling outside the clinical range. Samuel's scores on the CORE-OM did not indicate any significant change and remained within the clinical range.

During the change interview, Samuel stated that the biggest change was his ability to go shopping as this was previously something that he had avoided; a change he attributed to the intervention. He also felt that, whilst dips in outcomes were attributable to external life events, the intervention had minimised their negative impact, and that in hindsight the events had been helpful. However, he reflected that the language used in the self-help book was too difficult, and that he struggled to engage in mindfulness tasks but enjoyed the other exercises. Samuel was very positive about the guided phone calls.

## **4. Extended Discussion**

### **4.1. Discussion of Additional Findings**

#### **4.1.1. CompACT Subscale Outcomes.**

The extended results indicate that the most consistent observations of clinically significant improvement were observed in the OE subscale, with mixed results for the BA subscale (yet the largest average percentage improvement), and minimal significant improvement on the VA subscale. Such outcomes are not necessarily surprising when considering that 80% of the weekly content focused on core processes relating to the OE and/or BA subscales, with content focusing on processes relating to the VA subscale only occurring in the final two weeks. Given that valued/committed action could be argued to be the most closely linked to life-functioning, this could be explained as a reason for the reduced life-functioning outcomes reported in the Journal Paper; however, this is a bold claim to make without further investigation of the relation between the concepts, and visual observation of the life-functioning and VA subscale scores over time is not indicative of a correlational pattern.

Due to the CompACT's comparatively new conceptualisation, it does not yet feature within the published research base, thus limiting the ability to compare this study's findings to existing literature. Within ACT self-help literature, a recent study by Roche et al. (2017) utilised a similar SCED design (with the same self-help book [Hayes & Smith, 2005]) within a Chronic Fatigue Syndrome population, and found that greatest improvements were observed within the domain of valued living. This contradicts the findings of this study; however, it needs to be considered that (a) a different client group was utilised, (b) the core processes were measured by four individual measures (not the CompACT), and (c) the order the components of the book were delivered was altered. Therefore, it is unclear what factors may have influenced this discrepancy in findings.

Gloster et al. (2017) found indication that participants, within an ACT face-to-face intervention, needed to engage in valued action *before* they could

reduce experiential avoidance. Such findings would predict that participants within this study would experience consistent reliable change in VA *before* consistent reliable change in OE; however, the results have shown a mixed picture with two participants showing this pattern (Lucy and Amber), and two participants showing the opposite (Ron and Samuel). Within Gloster et al.'s study they purposefully focused on introducing and monitoring valued action from the first session, whilst this study's intervention had minimal focus on valued action until the last two weeks, and so the ordering of the ACT components within an intervention's content could play an important part. Likewise, the difference in measurement strategy (they did not use the CompACT) could also impair the applicability of their findings to this study.

Linking the findings to the limited evidence base appears to indicate that the reduced levels of improvement in the VA subscale were unexpected. However, this remains tentative at best. The CompACT subscales are distinguishable, yet remain inter-related (Francis et al., 2016), reflecting the inter-relational nature of the core processes posited within the ACT model (Hayes et al., 2006); therefore, the observations made from the analysis of the CompACT subscales need to be taken cautiously. However, such outcomes support the argument for further research into the differential impact of the sub-components of the ACT model to further inform the focus, and ordering, of ACT interventions (Gloster et al., 2017).

#### **4.1.2. CORE Outcomes.**

The extended results indicate an unclear picture regarding CORE-OM outcomes, with indications that scores were relatively stable for two participants (Amber and Samuel), but with one participant (Ron) showing reliable improvement, and no participant showing clinical improvement. As the subscales of the CORE-OM (well-being, problems, functioning, risk) overlap with the other outcome measures, it is unclear why Samuel (who experienced reliable improvement in all measures) did not experience a greater level of improvement in his CORE-OM score. However, whilst previous literature has

indicated that participants on psychotherapy waiting lists show stable CORE-OM scores (Barkham et al., 2007), a stable baseline on the CORE-OM was not established (only taken at pre- and post- intervention time-points), and so it is unclear if the participants' trajectories were impacted by the intervention.

At current, no published ACT self-help literature includes the CORE-OM as an outcome. Face-to-face ACT has been shown to produce significant improvements in CORE-OM outcomes within Step-4 populations, with average CORE-OM scores remaining above the clinical cut-off (Richardson, Bell, Bolderston, & Clarke, 2018); however, the number of participants who *did* move below the CC was not reported. Similar outcomes are also seen within guided CBT self-help literature, with reliable improvements in CORE-OM scores experienced within community anxiety/depression populations, and reports of 47%-48.6% of participants showing a clinical level of improvement (Learmonth & Rai, 2008; Lucock, Kirby, & Wainwright, 2011; Reeves & Stace, 2005; Williams et al., 2013). Whilst this might be indicative of a level of similarity (with this study's intervention potentially presenting as less effective in producing improvements in CORE-OM outcomes), comparative conclusions are difficult to draw due to (a) the limited sample size, (b) no ACT self-help literature detailing CORE-OM outcomes, and (c) no established base-line within this study.

#### **4.2. Acceptability and Feasibility**

Alongside the formally gathered feedback from the participants, feedback from the clinicians within the recruiting service was also gathered following the end of data collection. This was gathered informally, in response to clinicians expressing opinions (via email) on the feasibility of expanding the intervention for wider use within the service. Feedback mostly echoed those of the participants, whereby they expressed that they thought the intervention was "helpful" and "suitable" for the client group, and that individuals liked the exercises and metaphors, but that changes were required to make it more acceptable, e.g., "the book could be simplified (particularly the language) and shortened". A common remark was that the intervention seemed to require a

certain level of psychological awareness and a stable lifestyle, and that the intervention might better be used “as a ‘step down’ intervention from the service [*after* individual psychotherapy], to help clients manage any residual distress and to find value in their lives”. Such feedback further informs and strengthens the recommended clinical adaptations suggested within this study; however, also provides an avenue for further research considerations regarding the utility of guided ACT self-help as a secondary intervention.

Whilst this study was not a feasibility study, there were a few notable feasibility features that were not discussed further within the Journal Paper. The need for a second wave of recruitment highlights possible feasibility issues, with nine eligible individuals declining to participate for reasons due to the intervention content (three felt that the intervention would not be helpful for their level of difficulty, and three said that they had done something similar that had not been helpful), or the research component (one felt it would be too confusing to divert from the original intervention plan, and two did not feel they could commit to the research schedule). Of these nine individuals, eight declined over the phone, with only one individual declining *after* attending the initial assessment stating she could not commit to the intervention following reading the information sheet. The above reasons for declining, along with the reported reasons for withdrawal, suggest that both the intervention content and the research requirements have contributed to reducing the feasibility of conducting this intervention/research within this population.

However, results also indicate that, from a service perspective, the application of the intervention is feasible. The fidelity outcomes of the guided phone calls indicate that it was possible for APs to deliver the intervention appropriately with the given “scripts” and minimal training. Further to this, only two phone calls went over the allocated 30-minute time-slot (2.38%), indicating that they were a suitable length to cover the necessary work, only needing expansion when the individual was experiencing emotional difficulties. As 23.33% of phone calls were missed, this might suggest that adaptations may need to be made to improve participant engagement; however, given the

qualitative feedback, it is suggested that it is the timing of the phone calls that may need more flexibility, rather than the content needing adaptation.

Across all the outcome measures administered, only one participant missed a week of outcome measures (2.38% of all outcomes). Within the outcome measures completed, no data points were missing. On four occasions, participants started outcome measures but then did not complete them until the following day. When taking these four occasions out of the equation, the mean average duration of completion was 14.77 minutes (SD = 16.77; range: 4.12-121.67). This suggests that the burden of the outcome measures on the participants was not excessive; however, sometimes participants struggled to complete them in one sitting. One participant reported that the outcome measures had been unhelpful as they reminded him how distressed he felt, highlighting the value of ongoing phone support to monitor this. One participant also raised concerns regarding the descriptors of the CompACT appearing to be in the wrong order.

Taking the above into account, the intervention and research components have reasonable feasibility within this population; however, as argued in the Journal Paper, adaptations to the content of the intervention are required prior to future implementation. The timings of the intervention and research components also might need greater flexibility to improve acceptability to participants; however, this would impair the scientific validity of the research design.

#### **4.3. Generalisability of Study Sample when Informing Service Delivery**

The sample was assumed to be representative of the individuals found on the waiting lists within LPFT's Step-4 psychotherapy services; however, for logistical reasons, no service data could be obtained to ascertain the validity of this assumption. This makes it difficult to determine the extent that results can be generalised to other individuals on Step-4 psychotherapy waiting lists.

Since the completion of data collection, LPFT Step-4 psychotherapy services have become more integrated with the Community Mental Health Teams (CMHTs), so that other colleagues can deliver evidence based interventions (including guided self-help) under the supervision of qualified psychologists. It was estimated that this stepped-care approach would lead to only 35% of referrals needing one-to-one therapy with a clinical psychologist (Jackson, 2016). Such transformations in care have been part of the cross-government strategy to mainstream mental health services (Department of Health, 2011; The Mental Health Taskforce, 2016), including a definitive shift towards the integration of specialist services into CMHTs and increased focus on recovery and self-management (The King's Fund, 2015).

Due to this study excluding individuals with CMHT input (to reduce extraneous IVs), this organisational change could reduce the generalisability of the sample (i.e., individuals receiving CMHT input alongside a guided ACT self-help intervention may present with different outcomes). However, the push for more guided self-help interventions at the Step-4 level increases the relevance of this study's findings, which could help inform such service level change (Centre for Reviews and Dissemination, 2011; The King's Fund & The Health Foundation, 2015).

#### **4.4. Critique of Analytic Strategy**

##### **4.4.1. Critique of RCI and CSC Methodology.**

The benefit of the RCI and CSC method is that, unlike most group designs (e.g., RCTs), it allows for more in-depth exploration of individual treatment response (Wise, 2004). It also aids consideration of when change is meaningful, rather than just statistically significant. However, despite being widely favoured, the approach has received critique.

Kazdin (1999) argued that such methods may not truly reflect whether experienced change is meaningful to an individual. An individual's change in score on a measure might meet both reliable change and CSC criterion, yet that



does not mean that the individual feels that their life has improved. Further to this, failure to meet such criteria does not mean that treatment was unsuccessful. For example, a small improvement that does not meet the RCI cut-off might be attributed to measurement error, when it actually represents meaningful change (Hageman & Arrindell, 1993). Kazdin (2001) stated that such difficulties are emphasised when treatment outcomes focus on symptom reduction, instead of outcomes matched to the problems, goals, and lives of the individual.

Therefore, the strength of this study is that (a) quantitative results are triangulated with qualitative feedback to avoid misattribution of outcomes, and (b) outcomes are not purely focused on symptom outcomes and consider broader factors such as well-being and life-functioning. Inclusion of wider outcomes is also supported within the ACT literature, as symptom reduction is not the primary aim of intervention (Hayes et al., 2006).

When considering the above, the RCI and CSC methodology has enabled clearer analysis of meaningful change within this study; however, the results to be taken within the context of the wider qualitative feedback. Such a methodology has withstood rigorous debate, and represents a positive shift towards investigation of individual treatment effects (Wise, 2004).

#### **4.4.2. Critique of Average Percentage Change Methodology.**

The use of average percentage change has helped indicate which outcomes have experienced the greatest amount of improvement/deterioration across the sample. Whilst average percentage change has been suggested as more suitable within smaller samples where other levels of group based analysis are unsuitable (Vickers, 2001), the limitations of using average percentage outcomes need to be addressed. Outcomes can be skewed by large outliers, be vulnerable to statistical invalidities, and results are statistically inefficient with further analysis being required to strengthen the conclusions that can be drawn (Vickers, 2001). For example, necessary further analysis might

include providing data values to give numerical context, and running statistical analyses to protect against misattribution of natural variance. Whilst there is argument between whether absolute change or percentage change should be reported, and whether there are mathematical methods for determining the most suitable approach, it is often dependent on the research context and aims (Zhang & Han, 2009). For example, researchers often favour reporting average percentage change when comparing outcomes using different units of measurement (Törnqvist, Vartia, & Vartia, 1985).

Therefore, within this study, a decision was made that average percentage change would be reported. This has enabled outcomes that are (a) relatable to the predictions of the PMPO, (b) independent of the units of measurement, and (c) accessible to readers. When reported on their own, the given percentage change values have clear limitations; however, they have been reported alongside further statistical and visual analysis of the quantitative outcomes, and qualitative feedback from participants, which has reduced the limitations of the approach.

#### **4.4.3. Critique of Visual Analysis Methodology.**

Whilst strategic implementation of visual inspections can help strengthen conclusions drawn from case-series data, the risks of misinterpretation remain present and the level of inter-rater agreement is not always sufficient (Deprospero & Cohen, 1979; Ottenbacher, 1990). To attempt to mitigate this risk, this study has operationalised more objective criteria alongside consideration of wider contextual factors when analysing the data. Further to this, the data was reviewed independently by the first and second author, prior to discussing the results and coming to balanced conclusions; therefore, reducing the impact of bias that the first author might hold.

Whilst misinterpretation is reduced through the implementation of the dual criterion method, a limitation is that the baseline trendline can be easily thrown by an anomalous score. This can lead to type II errors (false negatives),

as scores showing an effect may not breach the trendline and count towards the PND assessment of efficacy. This limitation can be removed if the intervention does not start prior to baseline stability being established, however, within this study, achieving stability on all measures was not achievable. Therefore, focus was placed on achieving stability on the main measure (MHC-SF; See Extended Paper 2.13.). Yet this is a clear limitation of the analysis of the other measures.

Within the visual analysis methodology used, type I errors can still occur, and the PND assessment is vulnerable to decreased accuracy due to the potential presence of serial dependence<sup>29</sup> in the data series and so, whilst it may improve reliability, it does not necessarily improve the validity of the results (Crosbie, 1987). However, despite this, the method allows for the standardising of analysis and increased inter-rater reliability, with good performance within original simulations (Morgan & Morgan, 2009). Fisher et al. (2003) stated that type I error rates can be reduced by using a more conservative dual criterion (CDC), where the line indicating the average of the baseline is raised by 0.25 SDs (calculated from the baseline data). Within this study, CDC was not operationalised as the intervention was low level and, therefore, the impact would be harder to capture if the criterion were too strict. Therefore, sensitivity to change was prioritised over specificity. However, the addition of the change interviews helps to reduce the risk of Type I error, which is a strength of this study as many studies can neglect clear consideration of wider contextual factors (Fisher et al., 2003).

The inclusion of the change interview has allowed consideration of the timings of improvements/deteriorations in relation to external life events, of which both positive and negative can be plotted on the graphs to enable transparency. This enables clearer analysis of whether the timings of life-events are in any way consistent with the observed changes in outcome. However, a limitation is that participants are unlikely to report every single life event that

---

<sup>29</sup> Serial Dependence: Where scores at one time-point are influenced by scores of a previous time-point

occurred over the duration of their participation, or may be biased towards only reporting negative life events (or vice-versa). Therefore, it should not be assumed that all relevant life-events are indicated on the graphical plots.

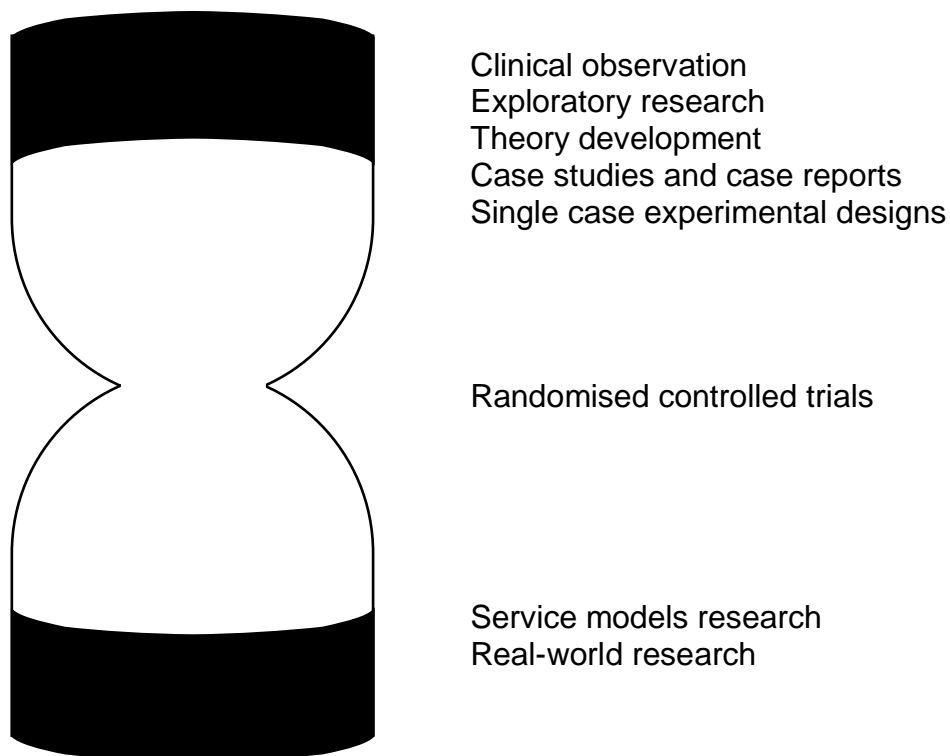
#### **4.5. Generalising Results to Inform Clinical Practice and Future Research**

Due to their small sample size, SCEDs are considered to produce results that are less generalisable to related populations when compared to larger sample sizes within group designs/RCTs. However, there is a misconception that significance testing (within group designs/RCTs) and larger samples implies generality of results. Regardless of sample size, group designs cannot provide information about inter-subject generality because, whilst an overall result is produced, no information is reported concerning the number of participants for whom the effect was observed and the impact of individual participant factors and/or intervention components (Branch & Pennypacker, 2011). Therefore, it is the *replicability* of results across participants/settings/intervention components that is most effective at indicating the generality of outcomes, and it is here, through systematic experimental replication, that SCEDs have their advantage (Branch & Pennypacker, 2011).

As discussed in the Journal Paper, a minimum of three replications is advised before conclusions can be generalised (Kratochwill et al., 2010). As such, the generality of this study's findings is limited in some respects. However, there are certain findings that did meet this criterion; for example, the qualitative feedback from participants regarding the usefulness and acceptability of the intervention, attributions made, and the utility of the guided phone calls. Generalisation is still limited to this participant group (see Extended Paper 4.3.), and so future research would need to adopt the same experimental strategy across different settings, participants, and target behaviours before wider generality can be determined (Dallery, Cassidy, & Raiff, 2013). This could help inform which outcomes are replicable in which areas (including where treatment components may not be effective), thus informing the structure of the treatment and where it would be best targeted (Johnston & Pennypacker,

2009). Only then would advancement to RCTs be appropriate to better establish efficacy in comparison to other conditions within this population (Biglan, Ary, & Wagenaar, 2000), before expanding out to consider the treatment's wider real-world application (where treatment may be delivered in less stringent conditions).

Such a pattern of treatment development is often illustrated using the Hourglass Model (Salkovskis, 1995; Figure 34), whereby this study's findings are situated within the "upper" part of the hourglass. Therefore, the findings should be used to inform the refinement of the intervention, before re-testing to assess replicability of results and inform further refinement of the intervention's use within this population.



*Figure 34. Salkovskis' Hourglass Model of Psychotherapeutic Research*

## 5. Critical Reflection

Reflection is vital to a Clinical Psychologist's development and can enhance the quality of scientific enquiry (Murray & Kujundzic, 2005; Sheikh, Milne, & MacGregor, 2007). This section presents my scientific, ethical, and theoretical reflections regarding the research process.

### 5.1. Scientific Reflections

My decision to focus on ACT self-help originated from my own personal experiences and multiple questions I held about *how* it worked, whether it was being oversold (Öst, 2014), and who it could be helpful for. I also held strong beliefs that the experiences of individuals on long waiting lists for psychotherapy needed to be improved (Mind, 2010), and the importance of scientific research to investigate the utility of any changes made (Centre for Reviews and Dissemination, 2011; The King's Fund & The Health Foundation, 2015). Whilst my personal experiences and values enabled me to remain engaged in the research process, they also meant that I felt a level of underlying responsibility to make it a success. Combined with my attachment to the recruiting service (my first doctoral placement), and my desire to do well on the doctoral course, they led to a high level of anxiety to do the research "right". On reflection, this caused me to change my ideas multiple times to please others. I learnt the importance of not just changing my ideas and methodologies on a whim, but to instead think carefully about my aims and my epistemology (Extended Paper 5.3.) to come to clear and balanced decisions.

This led to the decision to utilise a SCED methodology despite initially feeling a push to do an RCT. Current scientific discourse is that RCTs are the "gold standard" and are often the only research design to feature as evidence within NICE guidance. I felt pressure to have a high number of participants, and a powerful RCT, for my results to have any worth in the scientific community. However, RCTs felt unethical to me; appearing to be counter-intuitive to my values of not leaving individuals on a waiting list. I also felt that an RCT design would not meet my aims as, whilst they can evidence the efficacy of an

intervention, they can struggle to investigate *how* an intervention works (Persons & Silberschatz, 1999; Rassafiani & Sahaf, 2010). I was relieved to discover the SCED methodology and to find that within the ACT community there was a push for such designs (Hayes, 1981; Holman & Koerner, 2014; Vilardaga, 2014). It felt more acceptable to investigate a few cases in detail to get the depth required to answer my research questions, and I was glad that I had chosen to stick to my values and goals. I also felt relieved at the idea that fewer participants would mean that my research would be easier to manage within the constraints and pressures of the course; however, on reflection that assumption was likely wrong.

The depth able to be achieved by a SCED was both a positive and a negative. The result was that I struggled to narrow down my ideas and focus on what I truly wanted to find out. This led to a failed protocol and feedback that I was being “too ambitious” and needed to narrow down my ideas. I returned to the existing literature with the aim of finding out “what do we know about how ACT self-help works?” and “what evidence is missing?”. I learnt more about the PMPO and the ACT model (Extended Paper 5.3.), and more importantly what was missing within the literature. This enabled me to narrow down my aims and enhance the focus of the research, and was a key learning point to carry forward to future research projects.

However, with a limited time-frame to complete my amended protocol, pressure to submit ethics, alongside multiple other assignments, I was pushed to make decisions quickly. Whilst this likely enhanced my efficiency, it meant that I potentially made decisions that were not fully informed. An example of this was my decision to use the SAS-SR-M as the measure of life-functioning. Whilst I provide the rationale behind the decision, there were potentially better suited measures out there, as indicated by my critique (Extended Paper 2.11.). I also developed the change interview schedule (Appendix K) based on my research aims, without knowledge of the framework proposed by Elliot (2010) which, considering its similarities, further supports the face validity of the existing framework. Such knowledge has been developed *after* the commencement of data collection, however, I have had to manage my

frustrations at not knowing then what I know now. Moving into conducting research within my qualified role it is likely that other time pressures will exist, however, I now value the importance of asserting the need for more time to weigh up decisions, and recognising that research is a learning experience.

Upon commencement of data collection, I was keen to avoid bringing bias into the results. Therefore, I utilised the support of course supervisors (blind to service proceedings) to conduct the randomisation and fidelity checks, and the intervention was conducted by the service so that I could remain purely within the researcher role. However, I had not considered how my own anxieties about the research process might also impact outcomes. For example, I was anxious about recruiting enough participants, which may have impacted how I presented the research to potential participants in the pre-intervention meetings; wanting to make it seem highly effective and worth their while, whilst at the same time wanting to give realistic expectations about what the intervention could achieve so that they were not disappointed. This could impact results as levels of hope and expectation can predict future therapeutic outcome (Irving et al., 2004). I had to continually monitor myself to ensure that I remained impartial but, without an independent observer to the meetings, it is difficult to determine how my presentation may have impacted participant engagement and outcome. Further to this, the handing over of the intervention to the service caused me a level of anxiety as I felt out of control. I had to utilise supervision to reflect on the urges I felt to pester the service or the participants when things were not done to plan; trying to balance having the intervention as structured and scientific as possible whilst allowing for a certain amount of naturalistic observation so that results could be more applicable to real life settings. My anxiety levels were becoming problematic at the time, however, a shift occurred when I began to practice the ACT model on myself and learn to accept the events outside of my control. This allowed me to focus more easily on my goal of being an effective scientific practitioner, and gave me space to better engage in my ongoing clinical work

Having chosen a mostly quantitative design, I had initially been under the impression that bias would not feature within my data analysis. However, the



analysis presented me with a wide range of data, and a multitude of ways to present it within the journal paper. Skinner (1974) argued that bias cannot be avoided in the process of behavioural analysis as the act of analysis is a behaviour in itself. I became acutely aware that how I reported the results, and what results I chose to emphasise, could impact the scientific literature and resulting clinical decisions, and I remained fearful of the scrutiny within the ACT community (Öst, 2014). I took a step back to reflect on my own feelings towards the data. I recognised that I was stuck between wanting to represent the intervention as being useful so that I could know that I had helped people and had not wasted NHS time and resources, but also wanting it to not be helpful so that the worth of the clinical psychologist and individual psychotherapy was not undermined. By making recognising my biases, I was better able to reduce their impact on the reporting of my data.

## **5.2. Ethical Reflections**

During my research I held concerns about the amount of work that I was asking participants to do. I was aware that it had passed ethical approval and gained positive feedback from the SUCAP, but I was worried that participants would struggle to remain engaged in the process and that it would be viewed as my fault. This may have impacted my attitude within the pre-intervention meetings (Extended Paper 5.1.), but also may have impacted how I managed situations when a participant was asking to withdraw. Ethically, I knew I needed to accept the withdrawals with no question, however, I had to fight the urge to apologise, or to try to convince them to remain in the process. Thankfully I could contain these feelings and remain ethical during such instances, however, I had to utilise supervision to vent my guilt and frustration, and change my thought process to recognise that it was out of my control. This was difficult to do, but the biggest change came when I realised the strength of conducting the change interview; giving participants a forum to explain what went wrong and what could have gone better, and being able to use this knowledge to inform future research and practice.

I also faced an ethical challenge whilst conducting the change interviews. Engaging participants in open and honest reflections about their experience required a certain level of therapeutic alliance (Elliott et al., 2001), however, I sometimes felt myself being drawn into a therapeutic role. For example, wanting to provide formulation and re-framing when two participants became upset disclosing distressing histories, or wanting to challenge inconsistencies in a participant's narrative of events. Recognising and sticking to the boundary between research and therapy was harder than I expected, and I learnt the importance of recognising my internal urges and choosing to act otherwise; remaining compassionate but impartial.

### **5.3. Theoretical Reflections**

Part of my research journey was learning about epistemology and my position within it. Prior to the doctorate, I feel I was positivist and valued quantitative research over qualitative. Upon commencing the doctorate, I soon developed a more critical eye regarding the limitations of such a position and felt a shift towards more social constructionist views. However, social constructionist methods of data analysis did not seem scientifically rigorous enough to me, and I really struggled to determine my beliefs about the "truth" and its relation to scientific enquiry. This prompted a lot of reading into the subject, many reflections within supervision, and frustrations that I found it so hard to understand. I learnt more about the theories of functional contextualism and its relation to radical behaviourism, and I began to realise that it was more in line with my personal views. This process of learning about epistemology, recognition of my own personal stance, applying it to my research design, and self-reflection on how my stance might fluctuate over time, has been difficult but vital to my practice both as a researcher and a practitioner. I have been able to apply my learning to my clinical work, by considering how an individual's epistemology may impact their relation to the therapeutic model adopted within therapy (Saferstein, 2007), and how it might inform my practice as a scientific practitioner.

My learning during this research has also impacted my clinical work in other ways. Learning about the PMPO, and its relation to the stages of therapy, has prompted reflection on my own practice. Am I in tune with where an individual is at, or do I blindly stick to a structured therapy? I also began to consider whether the stages of change as predicted by the PMPO were something I had observed. The model allowed me to recognise that as a therapist it is okay to not “fix everything”, but to instead focus on helping an individual move through the stages of the PMPO, and that hope and therapeutic alliance is more powerful than I thought (Irving et al., 2004). It has also highlighted the many different outcomes that might be important to an individual, beyond that of symptomatology. In a way this was quite freeing, but I also felt frustration at many services’ continual fixation on symptomatology as a sole outcome. I hope to take this learning forward to inform how service outcomes are recorded in my future roles.

Finally, the research process has allowed me to learn more about ACT and its theoretical foundations. I noted my surprise at ACT initially seeming to be inductive in its development (Corrigan, 2001), but how this is often a limitation of newer therapeutic models as the evidence base takes time to build (Gaudiano, 2009). I have learnt that it is important to not take theoretical models of psychotherapy at face value, but to instead focus on following the evidence base, and conducting and publishing research to further advance this knowledge. I also began to reflect on whether psychotherapeutic models are just using different language to make sense of the same processes. For example, the ACT model of not directly changing the content of your thoughts but rather changing how you relate to them, may be occurring within CBT. For example, a CBT thought challenge might seem to target the content of the thought, but could instead function to distance the individual from their thought and change how they relate to it. Alternatively, the ACT process of distancing may instead function to change the contents of thoughts, thus changing how the individual feels and behaves (as posited by the CBT model). Linking such reflections back to epistemology, perhaps what is more important is doing what makes sense and is helpful to the client within that context, rather than get too

caught up on what the “truth” is. Therefore, the importance of taking a scientific approach towards monitoring outcomes within clinical work is vital.

#### **5.4. Summary of Reflections**

Upon conducting these reflections, it is interesting to note that I appear to have applied the ACT model to my own learning during the research process. For example, learning to accept the things that are out of my control, being mindful of my own thought processes and reactions to minimise bias, and choosing to follow my own values and goals. I have learnt a lot from the process, and it has had a positive impact on my attitudes towards my roles as both a researcher and a clinician. Moving forward, I feel that my scientific practitioner approach will be enhanced by remembering the following key learning points:

- Focus on your own epistemology, values, and goals, rather than the opinions of others
- Don't be too ambitious. Read the literature to determine the gap in the evidence base to help narrow down your ideas
- Give yourself time to think through each of the decisions you make
- Remain mindful of your own internal experiences, and utilise reflection and supervision to reduce bringing bias into the scientific process
- No research is perfect, and the things you learn can be used to inform future research
- Use the research process to inform your clinical practice

## Extended References

- Abramowitz, J. S., Tolin, D. F., & Street, G. P. (2001). Paradoxical effects of thought suppression: A meta-analysis of controlled studies. *Clinical Psychology Review*, 21(5), 683–703. [https://doi.org/10.1016/S0272-7358\(00\)00057-X](https://doi.org/10.1016/S0272-7358(00)00057-X)
- Achard, S., Chignon, J. M., Poirier-Littré, M. F., Galinowski, A., Pringuey, D., Van Os, J., & Lemonnier, F. (1995). [Social adjustment and depression: value of the SAS-SR (Social Adjustment Scale Self-Report)]. *L'Encéphale*, 21(2), 107–16. Retrieved from <http://www.ncbi.nlm.nih.gov/pubmed/7781581>
- Agosti, V., & Stewart, J. W. (1998). Social functioning and residual symptomatology among outpatients who responded to treatment and recovered from major depression. *Journal of Affective Disorders*, 47(1–3), 207–210. [https://doi.org/10.1016/S0165-0327\(97\)00119-5](https://doi.org/10.1016/S0165-0327(97)00119-5)
- American Psychiatric Association [APA]. (2013). *Diagnostic and Statistical Manual of Mental Disorders* (5th ed.). Washington, DC, DC: American Psychiatric Association.
- Anderson, L., Lewis, G., Araya, R., Elgie, R., Harrison, G., Proudfoot, J., ... Williams, C. (2005). Self-help books for depression: How can practitioners and patients make the right choice? *British Journal of General Practice*, 55(514), 387–392. Retrieved from <http://www.ncbi.nlm.nih.gov/pubmed/15904559>
- Antony, M. M., Bieling, P. J., Cox, B. J., Enns, M. W., & Swinson, R. P. (1998).

Psychometric properties of the 42-item and 21-item versions of the Depression Anxiety Stress Scales in clinical groups and a community sample. *Psychological Assessment*, 10(2), 176–181.

<https://doi.org/10.1037/1040-3590.10.2.176>

Backman, C. L., Harris, S. R., Chisholm, J. A. M., & Monette, A. D. (1997).

Single-subject research in rehabilitation: A review of studies using AB, withdrawal, multiple baseline, and alternating treatments designs. *Archives of Physical Medicine and Rehabilitation*, 78(10), 1145–1153.

[https://doi.org/10.1016/S0003-9993\(97\)90142-8](https://doi.org/10.1016/S0003-9993(97)90142-8)

Baer, D. M. (1977). “Perhaps it would be better not to know everything.” *Journal of Applied Behavior Analysis*, 10(1), 167-172.

<https://doi.org/10.1901/jaba.1977.10-167>

Bailey, D. B. (1984). Effects of lines of progress and semilogarithmic charts on ratings of charted data. *Journal of Applied Behavior Analysis*, 17(3), 359–365. <https://doi.org/10.1901/jaba.1984.17-359>

Ballard, R. (1992). Short forms of the Marlow-Crowne Social Desirability Scale. *Psychological Reports*, 71(3), 1155–1160.

<https://doi.org/10.2466/pr0.1992.71.3f.1155>

Bardeen, J. R., & Fergus, T. A. (2016). The interactive effect of cognitive fusion and experiential avoidance on anxiety, depression, stress and posttraumatic stress symptoms. *Journal of Contextual Behavioral Science*, 5(1), 1–6. <https://doi.org/10.1016/j.jcbs.2016.02.002>

Barker, C., Pistrang, N., & Elliott, R. (2016). *Research methods in clinical*

*psychology: An introduction for students and practitioners. Methods* (3rd ed.). Chichester, UK: John Wiley & Sons, Ltd.

Barkham, M., Mullin, T., Leach, C., Stiles, W. B., & Lucock, M. (2007). Stability of the CORE-OM and the BDI-I prior to therapy: Evidence from routine practice. *Psychology and Psychotherapy: Theory, Research and Practice*, 80(2), 269–278. <https://doi.org/10.1348/147608306X148048>

Barkham, M., Rees, A., Stiles, W. B., Shapiro, D. A., Hardy, G. E., & Reynolds, S. (1996). Dose-effect relations in time-limited psychotherapy for depression. *Journal of Consulting and Clinical Psychology*, 64(5), 927–35. Retrieved from <http://www.ncbi.nlm.nih.gov/pubmed/8916621>

Barlow, D. H., Nock, M., & Hersen, M. (2008). *Single case experimental designs: strategies for studying behavior for change* (3rd ed.). New York, USA: Allyn and Bacon.

Bayliss, K. M., Golijani-Moghaddam, N. G., & Dawson, D. L. (2018). *Confirmatory factor analysis of the Comprehensive Assessment of Acceptance and Commitment Therapy Processes*. Unpublished manuscript, Department of Psychology, University of Nottingham, Nottingham, UK.

Beaulieu, J. M. (2012). A role for Akt and glycogen synthase kinase-3 as integrators of dopamine and serotonin neurotransmission in mental health. *Journal of Psychiatry and Neuroscience*, 37(1), 7–16. <https://doi.org/10.1503/jpn.110011>

Beck, A. T. (1963). Thinking and Depression. *Archives of General Psychiatry*,

9(4), 324. <https://doi.org/10.1001/archpsyc.1963.01720160014002>

Beck, A. T. (1976). *Cognitive therapy and the emotional disorders*. New York, USA: International Universities Press. Retrieved from [https://books.google.co.uk/books/about/Cognitive\\_therapy\\_and\\_the\\_emotional\\_diso.html?id=zndHAAAAMAAJ&redir\\_esc=y](https://books.google.co.uk/books/about/Cognitive_therapy_and_the_emotional_diso.html?id=zndHAAAAMAAJ&redir_esc=y)

Beck, A. T., & Steerer, R. A. (1993). *Beck Anxiety Inventory manual*. San Antonio, TX: Psychological Corporation.

Beck, A. T., Steer, R. A., & Brown, G. K. (1996). *Beck Depression Inventory-II*. San Antonio, TX: Psychological Corporation.

Biglan, A., Ary, D., & Wagenaar, A. C. (2000). The value of interrupted time-series experiments for community intervention research. *Prevention Science : The Official Journal of the Society for Prevention Research*, 1(1), 31–49. <https://doi.org/10.1023/A:1010024016308>

Biglan, A., & Hayes, S. C. (1996). Should the behavioral sciences become more pragmatic? the case for functional contextualism in research on human behavior. *Applied and Preventive Psychology*, 5(1), 47–57. [https://doi.org/10.1016/S0962-1849\(96\)80026-6](https://doi.org/10.1016/S0962-1849(96)80026-6)

Blalock, H. M. (1964). *Causal inferences in nonexperimental research*. Chapel Hill: University of North Carolina Press.

Bond, F. W., Hayes, S. C., Baer, R. A., Carpenter, K. M., Guenole, N., Orcutt, H. K., ... Zettle, R. D. (2011). Preliminary Psychometric Properties of the Acceptance and Action Questionnaire-II: A Revised Measure of



- Psychological Inflexibility and Experiential Avoidance. *Behavior Therapy*, 42(4), 676–688. <https://doi.org/10.1016/j.beth.2011.03.007>
- Bosc, M., Dubini, A., & Polin, V. (1997). Development and validation of a social functioning scale, the social adaptation self-evaluation scale. *European Neuropsychopharmacology*, 7(1), 57–73. [https://doi.org/10.1016/S0924-977X\(97\)00420-3](https://doi.org/10.1016/S0924-977X(97)00420-3)
- Boswell, J. F., Kraus, D. R., Miller, S. D., & Lambert, M. J. (2015). Implementing routine outcome monitoring in clinical practice: Benefits, challenges, and solutions. *Psychotherapy Research*, 25(1), 6–19. <https://doi.org/10.1080/10503307.2013.817696>
- Bottesi, G., Ghisi, M., Altoè, G., Conforti, E., Melli, G., & Sica, C. (2015). The Italian version of the Depression Anxiety Stress Scales-21: Factor structure and psychometric properties on community and clinical samples. *Comprehensive Psychiatry*, 60, 170–181. <https://doi.org/10.1016/j.comppsy.2015.04.005>
- Bower, P., Richards, D., & Lovell, K. (2001). The clinical and cost-effectiveness of self-help treatments for anxiety and depressive disorders in primary care: a systematic review. *The British Journal of General Practice : The Journal of the Royal College of General Practitioners*, 51(471), 838–45. Retrieved from <http://bjgp.org/content/bjgp/51/471/838.full.pdf>
- Branch, M. N., & Pennypacker, H. S. (2011). Generality and Generalization of Research Findings. In G. J. Madden, T. Hackenberg, & K. A. Lattal (Eds.), *APA Handbook of Behavior Analysis*. Washington, DC: American

Psychological Association.

British Psychological Society. (2010). *Code of Human Research Ethics*.

Leicester, UK: British Psychological Society. Retrieved from

[https://www.bps.org.uk/sites/default/files/documents/code\\_of\\_human\\_research\\_ethics.pdf](https://www.bps.org.uk/sites/default/files/documents/code_of_human_research_ethics.pdf)

Buhrman, M., Skoglund, A., Husell, J., Bergström, K., Gordh, T., Hursti, T., ...

Andersson, G. (2013). Guided internet-delivered acceptance and commitment therapy for chronic pain patients: A randomized controlled trial. *Behaviour Research and Therapy*, 51(6), 307–315.

<https://doi.org/10.1016/j.brat.2013.02.010>

Butler, E. A., Egloff, B., Wilhelm, F. H., Smith, N. C., Erickson, E. A., & Gross, J.

J. (2003). The Social Consequences of Expressive Suppression. *Emotion*, 3(1), 48–67. <https://doi.org/10.1037/1528-3542.3.1.48>

Callahan, J. L., Swift, J. K., & Hynan, M. T. (2006). Test of the Phase Model of

Psychotherapy in a Training Clinic. *Psychological Services*, 3(2), 129–136.

<https://doi.org/10.1037/1541-1559.3.2.129>

Camfield, L., & Skevington, S. M. (2008). On subjective well-being and quality

of life. *Journal of Health Psychology*, 13(6), 76-75.

<https://doi.org/10.1177/1359105308093860>

Cavanagh, K., Strauss, C., Forder, L., & Jones, F. (2014). Can mindfulness and

acceptance be learnt by self-help? A systematic review and meta-analysis of mindfulness and acceptance-based self-help interventions. *Clinical*

*Psychology Review*, 34(2), 118–29.

<https://doi.org/10.1016/j.cpr.2014.01.001>

Centre for Reviews and Dissemination. (2011). *Evidence briefing on integrated care pathways in mental health settings*. Leeds, UK: National Institute for Health Research. Retrieved from:

<https://www.york.ac.uk/media/crd/Integrated%20care%20pathways%20evidence%20briefing.pdf>

Chang, T. I., & Tamura, M. K. (2009). Methods to Assess Quality of Life and Functional Status and Their Applications in Clinical Care in Elderly Patients with CKD. In M. Miller, A. M. O'Hare, & R. L. Shim (Eds.), *Geriatric Nephrology Curriculum* (pp. 1–6). USA: American Society of Nephrology.

Retrieved from <https://www.asn-online.org/education/distancelearning/curricula/geriatrics/Chapter35.pdf>

Chawla, N., & Ostafin, B. (2007). Experiential avoidance as a functional dimensional approach to psychopathology: An empirical review. *Journal of Clinical Psychology*, 63(9), 871–890. <https://doi.org/10.1002/jclp.20400>

Ciarrochi, J., Robb, H., & Godsell, C. (2005). Letting a little nonverbal air into the room: Insights from acceptance and commitment therapy. Part 1: Philosophical and theoretical underpinnings. *Journal of Rational - Emotive and Cognitive - Behavior Therapy*, 23(2), 79–106.

<https://doi.org/10.1007/s10942-005-0005-y>

Clara, I. P., Cox, B. J., & Enns, M. W. (2001). Confirmatory Factor Analysis of the Depression-Anxiety-Stress Scales in Depressed and Anxious Patients. *Journal of Psychopathology and Behavioral Assessment*, 23(1), 61–67.

<https://doi.org/10.1023/A:1011095624717>

Clark, D., & Wells, A. (1995). A Cognitive Model of Social Phobia. In R. G.

Heimburg, M. R. Liebowitz, D. A. Hope, & F. R. Schneier (Eds.), *Social Phobia: Diagnosis, Assessment, and Treatment* (pp. 69–93). New York, USA: Guilford Press. [https://doi.org/10.1016/S0005-7967\(97\)00022-3](https://doi.org/10.1016/S0005-7967(97)00022-3)

Connell, J., Barkham, M., Stiles, W. B., Twigg, E., Singleton, N., Evans, O., &

Miles, J. N. V. (2007). Distribution of CORE-OM scores in a general population, clinical cut-off points and comparison with the CIS-R. *British Journal of Psychiatry*, 190(JAN.), 69–74.

<https://doi.org/10.1192/bjp.bp.105.017657>

Cooper, P., Osborn, M., Gath, D., & Feggetter, G. (1982). Evaluation of a

modified self-report measure of social adjustment. *British Journal of Psychiatry*, 141, 68–75. <https://doi.org/10.1192/bjp.141.1.68>

Corrigan, P. W. (2001). Getting ahead of the data: A threat to some behavior

therapies. *The Behavior Therapist*, 24(9), 189–193. Retrieved from <http://psycnet.apa.org/record/2002-12440-002>

Coster, W. J. (2013). Making the best match: selecting outcome measures for

clinical trials and outcome studies. *The American Journal of Occupational Therapy: Official Publication of the American Occupational Therapy Association*, 67(2), 162–70. <https://doi.org/10.5014/ajot.2013.006015>

Crosbie, J. (1987). The inability of the binomial test to control type I error with

single-subject data. *Behavioural Assessment*, 9(2), 141–150. Retrieved from <http://psycnet.apa.org/record/1988-25293-001>

- Cuijpers, P., Donker, T., van Straten, A., Li, J., & Andersson, G. (2010). Is guided self-help as effective as face-to-face psychotherapy for depression and anxiety disorders? A systematic review and meta-analysis of comparative outcome studies. *Psychological Medicine*, 40(12), 1943–1957. <https://doi.org/10.1017/S0033291710000772>
- Cutuli, D. (2014). Cognitive reappraisal and expressive suppression strategies role in the emotion regulation: an overview on their modulatory effects and neural correlates. *Frontiers in Systems Neuroscience*, 8, 175. <https://doi.org/10.3389/fnsys.2014.00175>
- Dallery, J., Cassidy, R. N., & Raiff, B. R. (2013). Single-case experimental designs to evaluate novel technology-based health interventions. *Journal of Medical Internet Research*, 15(2), e22. <https://doi.org/10.2196/jmir.2227>
- Davies, G., Caputi, P., Skarvelis, M., & Ronan, N. (2015). The depression anxiety and stress scales: Reference data from a large psychiatric outpatient sample. *Australian Journal of Psychology*, 67(2), 97–104. <https://doi.org/10.1111/ajpy.12069>
- Dawson, D. L., & Golijani-Moghaddam, N. G. (2016). *Formulation in Action. Applying Psychological Theory to Clinical Practice*. Berlin, DEU: De Gruyter.
- Department of Health. (2009). *Improving access to psychological therapies (IAPT) Commissioning Toolkit*. *British Journal of General Practice (Vol. 59)*. London, UK: Department of Health. <https://doi.org/10.3399/bjgp09X454043>
- Department of Health. (2011). *No health without mental health: A cross-*

*Government mental health outcomes strategy for people of all ages. A Call to Action.* London, UK: Department of Health. Retrieved from [https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/213760/dh\\_123990.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/213760/dh_123990.pdf)

Department of Health. (2014a). *Access and waiting time standards for 2015-2016 in mental health services. Impact Assessment.* London, UK: Department of Health. Retrieved from [https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/362051/Impact\\_Assessment.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/362051/Impact_Assessment.pdf)

Department of Health. (2014b). *Achieving Better Access to Mental Health Services by 2020.* London, UK: Department of Health. Retrieved from [https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/361648/mental-health-access.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/361648/mental-health-access.pdf)

Deprospero, A., & Cohen, S. (1979). Inconsistent visual analyses of intrasubject data. *Journal of Applied Behavior Analysis*, 12(4), 573–579. <https://doi.org/10.1901/jaba.1979.12-573>

Diener, E. (2005). Guidelines for National Indicator of Subjective Well-Being and Ill-Being. *Guidelines for National Indicators*, 1(4), 1–7. <https://doi.org/10.1007/s10902-006-9000-y>

Diener, E., Emmons, R., Larsen, R., & Griffin, S. (1985). The Satisfaction With Life Scale. *Journal of Personality Assessment*, 49(1), 71–75. [https://doi.org/10.1207/s15327752jpa4901\\_13](https://doi.org/10.1207/s15327752jpa4901_13)

Division of Clinical Psychology. (2013). *Classification of behaviour and*

*experience in relation to functional psychiatric diagnoses: Time for a paradigm shift DCP Position Statement. Division of Clinical Psychology.*

Leicester, UK: British Psychological Society. Retrieved from

<https://dxrevisionwatch.files.wordpress.com/2013/05/position-statement-on-diagnosis-master-doc.pdf>

Dodge, R., Daly, A., Huyton, J., & Sanders, L. (2012). The challenge of defining wellbeing. *International Journal of Wellbeing*, 2(3), 222–235.

<https://doi.org/10.5502/ijw.v2i3.4>

Donald, J. N., Atkins, P. W. B., Parker, P. D., Christie, A. M., & Guo, J. (2017).

Cognitive Defusion Predicts More Approach and Less Avoidance Coping

With Stress, Independent of Threat and Self-Efficacy Appraisals. *Journal of*

*Personality*, 85(5), 716–729. <https://doi.org/10.1111/jopy.12279>

Dormon, F. (2015). *Topic overview: Is mental health care improving? Is mental health care improving?* UK: The Health Foundation. Retrieved from

[http://16878-presscdn-0-18.pagely.netdna-cdn.com/wp-](http://16878-presscdn-0-18.pagely.netdna-cdn.com/wp-content/uploads/2015/10/IsMentalHealthCareImproving-1.pdf)

[content/uploads/2015/10/IsMentalHealthCareImproving-1.pdf](http://16878-presscdn-0-18.pagely.netdna-cdn.com/wp-content/uploads/2015/10/IsMentalHealthCareImproving-1.pdf)

Dunn, T. W., Vittengl, J. R., Clark, L. A., Carmody, T., Thase, M. E., & Jarrett,

R. B. (2012). Change in psychosocial functioning and depressive

symptoms during acute-phase cognitive therapy for depression.

*Psychological Medicine*, 42(2), 317–326.

<https://doi.org/10.1017/S0033291711001279>

Elliott, R. (2010). Psychotherapy change process research: Realizing the

promise. *Psychotherapy Research*, 20(2), 123–135.

<https://doi.org/10.1080/10503300903470743>

Elliott, R., Slatick, E., & Urman, M. (2001). Qualitative change process research on psychotherapy: Alternative strategies. *Psychological Test and Assessment Modeling*, 43(3), 69. Retrieved from <http://psycnet.apa.org/record/2003-99376-005>

Evans, C., Connell, J., Barkham, M., Margison, F., McGrath, G., Mellor-Clark, J., & Audin, K. (2002). Towards a standardised brief outcome measure: Psychometric properties and utility of the CORE-OM. *British Journal of Psychiatry*, 180(JAN.), 51–60. <https://doi.org/10.1192/bjp.180.1.51>

Evans, C., Mellor-Clark, J., Margison, F., Barkham, M., Audin, K., Connell, J., & McGrath, G. (2000). CORE: Clinical Outcomes in Routine Evaluation. *Journal of Mental Health*, 9(3), 247–255. <https://doi.org/10.1080/jmh.9.3.247.255>

Falkenström, F., Josefsson, A., Berggren, T., & Holmqvist, R. (2016). How much therapy is enough? Comparing dose-effect and good-enough models in two different settings. *Psychotherapy*, 53(1), 130–139. <https://doi.org/10.1037/pst0000039>

Fisher, W. W., Kelley, M. E., & Lomas, J. E. (2003). Visual Aids and Structured Criteria for Improving Visual Inspection and Interpretation of Single-Case Designs. *Journal of Applied Behavior Analysis*, 36(3), 387–406. <https://doi.org/10.1901/jaba.2003.36-387>

Fledderus, M., Bohlmeijer, E. T., Pieterse, M. E., & Schreurs, K. M. G. (2012). Acceptance and commitment therapy as guided selfhelp for psychological



distress and positive mental health: a randomized controlled trial.

*Psychological Medicine*, 42, 485–495. Retrieved from

<http://www.narcis.nl/publication/RecordID/oai%3Adoc.utwente.nl%3A82596>

Fledderus, M., Oude Voshaar, M. A. H., ten Klooster, P. M., & Bohlmeijer, E. T. (2012). Further evaluation of the psychometric properties of the Acceptance and Action Questionnaire–II. *Psychological Assessment*, 24(4), 925–936. <https://doi.org/10.1037/a0028200>

Fox, E. J. (2006). Constructing a pragmatic science of learning and instruction with functional contextualism. *Educational Technology Research and Development*, 54(1), 5–36. <https://doi.org/10.1007/s11423-006-6491-5>

Fox, E. J. (2008). Contextualistic perspectives. In M. J. Spector, M. D. Merrill, J. Elen, & M. J. Bishop (Eds.), *Handbook of research on educational communications and technology* (pp. 55–66). New York, USA: Springer. Retrieved from <http://scholar.google.com/scholar?hl=en&btnG=Search&q=intitle:Contextualistic+Perspectives#2>

Francis, A. W., Dawson, D. L., & Golijani-Moghaddam, N. G. (2016). The development and validation of the Comprehensive assessment of Acceptance and Commitment Therapy processes (CompACT). *Journal of Contextual Behavioral Science*, 5(3), 134–145. <https://doi.org/10.1016/j.jcbs.2016.05.003>

French, K., Golijani-Moghaddam, N. G., & Schröder, T. (2017). What is the Evidence for the Efficacy of Self-Help Acceptance and Commitment

- Therapy? A Systematic Review and Meta-Analysis. *Journal of Contextual Behavioral Science*, 1–15. <https://doi.org/10.1016/j.jcbs.2017.08.002>
- Frisch, M. B. (1998). Quality of life therapy: An integrative model of etiology, assessment, and treatment of depression and related disorders. *Clinical Psychology: Science and Practice*, 5(1), 19–40.
- Frisch, M. B. (2006). *Quality of life therapy: Applying a Life Satisfaction Approach to Positive Psychology and Cognitive Therapy*. Hoboken: Wiley. Hoboken, New Jersey: John Wiley & Sons.  
<https://doi.org/10.1002/9781118468197.ch27>
- Frisch, M. B., Cornell, J., Villanueva, M., & Retzlaff, P. J. (1992). Clinical Validation of the Quality of Life Inventory: A Measure of Life Satisfaction for Use in Treatment Planning and Outcome Assessment. *Psychological Assessment*, 4(1), 92–101. <https://doi.org/10.1037/1040-3590.4.1.92>
- Gallagher, M. W., Lopez, S. J., & Preacher, K. J. (2009). The hierarchical structure of well-being. *Journal of Personality*, 77(4), 1025–1049.  
<https://doi.org/10.1111/j.1467-6494.2009.00573.x>
- Gámez, W., Chmielewski, M., Kotov, R., Ruggero, C., Suzuki, N., & Watson, D. (2014). The Brief Experiential Avoidance Questionnaire: Development and initial validation. *Psychological Assessment*, 26(1), 35–45.  
<https://doi.org/10.1037/a0034473>
- Gaudiano, B. A. (2009). Ost's (2008) methodological comparison of clinical trials of acceptance and commitment therapy versus cognitive behavior therapy: Matching apples with oranges? *Behaviour Research and Therapy*,

47(12), 1066–70. <https://doi.org/10.1016/j.brat.2009.07.020>

- Gifford, E. V., & Hayes, S. C. (1999). Functional Contextualism. In W. O'Donohoe & R. Kitchener (Eds.), *Handbook of Behaviorism* (pp. 285–327). San Diego, CA, USA: Academic Press. <https://doi.org/10.1016/B978-012524190-8/50012-7>
- Gillanders, D. T., Bolderston, H., Bond, F. W., Dempster, M., Flaxman, P. E., Campbell, L., ... Remington, B. (2014). The Development and Initial Validation of the Cognitive Fusion Questionnaire. *Behavior Therapy*, 45(1), 83–101. <https://doi.org/10.1016/j.beth.2013.09.001>
- Gloster, A. T., Klotsche, J., Ciarrochi, J., Eifert, G., Sonntag, R., Wittchen, H.-U., & Hoyer, J. (2017). Increasing valued behaviors precedes reduction in suffering: Findings from a randomized controlled trial using ACT. *Behaviour Research and Therapy*, 91, 64–71. <https://doi.org/10.1016/j.brat.2017.01.013>
- Golijani-Moghaddam, N. G., & Dawson, D. L. (2016). Cognitive-Behavioural Therapy. In N. G. Moghaddam & D. L. Dawson (Eds.), *Formulation in Action: Applying Psychological Theory to Clinical Practice* (pp. 36–59). Berlin, DEU: De Gruyter Open.
- Hageman, W. J. J. M., & Arrindell, W. A. (1993). A further refinement of the reliable change (RC) index by improving the pre-post difference score: Introducing RCID. *Behaviour Research and Therapy*, 31(7), 693–700. [https://doi.org/10.1016/0005-7967\(93\)90122-B](https://doi.org/10.1016/0005-7967(93)90122-B)
- Hansen, N. B., & Lambert, M. J. (2003). An evaluation of the dose-response

relationship in naturalistic treatment settings using survival analysis. *Mental Health Services Research*, 5(1), 1-12.

<https://doi.org/10.1023/A:1021751307358>

Hayes, S. C. (1981). Single case experimental design and empirical clinical practice. *Journal of Consulting and Clinical Psychology*, 49(2), 193–211.

<https://doi.org/10.1037/0022-006X.49.2.193>

Hayes, S. C. (1993). Analytic Goals and the Varieties of Scientific Contextualism. In S. C. Hayes, L. J. Hayes, T. R. Sarbin, & H. W. Reese (Eds.), *The varieties of scientific contextualism* (pp. 11–27). Reno, NV: Context Press. <https://doi.org/10.4324/9781315745138>

Hayes, S. C. (2004). Acceptance and commitment therapy, relational frame theory, and the third wave of behavioral and cognitive therapies. *Behavior Therapy*, 35(4), 639–665. [https://doi.org/10.1016/S0005-7894\(04\)80013-3](https://doi.org/10.1016/S0005-7894(04)80013-3)

Hayes, S. C. (2016). Examining the ACT Model in the Case Study of Taro. *Pragmatic Case Studies in Psychotherapy*, 11(4), 272–278. <https://doi.org/10.14713/pcsp.v11i4.1931>

Hayes, S. C., Barnes-holmes, D., & Roche, B. (2002). *Relational Frame Theory. A Post-Skinnerian Account of Human Language and Cognition*. New York: Plenum Press. <https://doi.org/10.1037/1040-3590.20.2.93>

Hayes, S. C., Luoma, J. B., Bond, F. W., Masuda, A., & Lillis, J. (2006). Acceptance and commitment therapy: model, processes and outcomes. *Behaviour Research and Therapy*, 44(1), 1–25. <https://doi.org/10.1016/j.brat.2005.06.006>

- Hayes, S. C., & Smith, S. (2005). *Get out of your mind and into your life: the new acceptance and commitment therapy*. Oakland, CA: New Harbinger Publications.
- Hayes, S. C., Strosahl, K. D., & Wilson, K. G. (2012). *Acceptance and commitment therapy: the process and practice of mindful change* (2nd ed.). New York, USA: Guildford Press.
- Hayes, S. C., Strosahl, K., & Wilson, K. G. (1999). *Acceptance and Commitment Therapy: Understanding and Treating Human Suffering*. New York: Guilford Press. New York: Guildford Press.
- Hayes, S. C., Wilson, K. G., Gifford, E. V., Bissett, R., Piasecki, M., Batten, S. V., ... Gregg, J. (2004). A preliminary trial of twelve-step facilitation and acceptance and commitment therapy with polysubstance-abusing methadone-maintained opiate addicts. *Behavior Therapy*, 35(4), 667–688. [https://doi.org/10.1016/S0005-7894\(04\)80014-5](https://doi.org/10.1016/S0005-7894(04)80014-5)
- Hayes, S. C., Wilson, K. G., Gifford, E. V., Follette, V. M., & et al, K. (1996). Experiential avoidance and behavioral disorders: A functional dimensional approach to diagnosis and treatment. *Journal of Consulting and Clinical Psychology*, 64(6), 1152–1168. <https://doi.org/10.1037/0022-006X.64.6.1152>
- Health and Social Care Information Centre. (2014). *Experimental analysis - Time to first contact, by provider and team type first seen*. Leeds, UK. Retrieved from [www.hscic.gov.uk/media/15035/Time-to-first-contact-in-adult-and-older-peoples-secondary-mental-health-services-by-](http://www.hscic.gov.uk/media/15035/Time-to-first-contact-in-adult-and-older-peoples-secondary-mental-health-services-by-)

provider/xls/Time\_to\_first\_contact\_in\_adult\_secondary\_mental\_health\_services\_by\_provider.xlsx

Health and Social Care Information Centre. (2017). Mental Health Services Monthly Statistics: Final March 2017. Retrieved September 16, 2017, from <http://content.digital.nhs.uk/searchcatalogue?productid=25307&topics=0%2FMental+health&sort=Relevance&size=10&page=1#top>

Henry, J. D., & Crawford, J. R. (2005). The short-form version of the Depression Anxiety Stress Scales (DASS-21): Construct validity and normative data in a large non-clinical sample. *British Journal of Clinical Psychology, 44*(2), 227–239. <https://doi.org/10.1348/014466505X29657>

Hersen, M. (1990). Single-Case Experimental Designs. In A. S. Bellack, M. Hersen, & A. E. Kazdin (Eds.), *International Handbook of Behaviour Modification and Therapy* (2nd ed., pp. 175–210). Boston, MA: Springer. <https://doi.org/https://doi.org/10.1007/978-1-4613-0523-1>

Hilsenroth, M. J., Ackerman, S. J., & Blagys, M. D. (2001). Evaluating the phase model of change during short-term psychodynamic psychotherapy. *Psychotherapy Research, 11*(1), 29–47. <https://doi.org/10.1080/713663851>

Hof, E. van't, Cuijpers, P., & Stein, D. J. (2009). Self-Help and Internet-Guided Interventions in Depression and Anxiety Disorders: A Systematic Review of Meta-Analyses. *CNS Spectrums, 14*(S3), 34–40. <https://doi.org/10.1017/S1092852900027279>

Holahan, C. J., Holahan, C. K., Moos, R. H., Brennan, P. L., & Schutte, K. K. (2005). Stress generation, avoidance coping, and depressive symptoms: A

10-year model. *Journal of Consulting and Clinical Psychology*, 73(4), 658–666. <https://doi.org/10.1037/0022-006X.73.4.658>

Holman, G., & Koerner, K. (2014). Single case designs in clinical practice: A contemporary CBS perspective on why and how to. *Journal of Contextual Behavioral Science*. <https://doi.org/10.1016/j.jcbs.2014.04.006>

Howard, K. I., Kopta, S. M., Krause, M. S., & Orlinsky, D. E. (1986). The Dose-Effect Relationship in Psychotherapy. *American Psychologist*, 41(2), 159–164. <https://doi.org/10.1037/0003-066X.41.2.159>

Howard, K. I., Lueger, R. J., Maling, M. S., & Martinovich, Z. (1993). A Phase Model of Psychotherapy Outcome: Causal Mediation of Change. *Journal of Consulting and Clinical Psychology*, 61(4), 678–685. <https://doi.org/10.1037/0022-006X.61.4.678>

Irving, L. ., Snyder, R., Cheavens, J., Gravel, L., Hanke, J., Hilberg, P., & Nelson, N. (2004). The Relationships Between Hope and Outcomes at the Pretreatment, Beginning, and Later Phases of Psychotherapy. *Journal of Psychotherapy Integration*, 14(4), 419–443. <https://doi.org/10.1037/1053-0479.14.4.419>

Jackson-Brown, F. (2013). *Get the Life you Want. Finding Meaning and Purpose through Acceptance and Commitment Therapy*. London, UK: Watkins Publishing.

Jackson, A. (2016). *Adult Psychology Services Proposal*. Lincoln, UK: Lincolnshire Partnership NHS Foundation Trust. Retrieved from [http://www.lpft.nhs.uk/assets/files/BOD meeting papers/2016/28 April](http://www.lpft.nhs.uk/assets/files/BOD%20meeting%20papers/2016/28%20April)

Jacobson, N. S., & Truax, P. (1991). Clinical significance: A statistical approach to defining meaningful change in psychotherapy research. *Journal of Consulting and Clinical Psychology*, 59(1), 12–19.

<https://doi.org/10.1037/0022-006X.59.1.12>

Jahoda, M. (1958). *Current concepts of positive mental health*. New York: Basic Books. <https://doi.org/10.1037/11258-000>

Jeffcoat, T., & Hayes, S. C. (2012). A randomized trial of ACT bibliotherapy on the mental health of K-12 teachers and staff. *Behaviour Research and Therapy*, 50(9), 571–9. <https://doi.org/10.1016/j.brat.2012.05.008>

Johnston, J. M., & Pennypacker, J. (2009). *Strategies and Tactics of Behavioural Research*. New York, USA: Routledge.

Joshanloo, M., Wissing, M. P., Khumalo, I. P., & Lamers, S. M. A. (2013). Measurement invariance of the Mental Health Continuum-Short Form (MHC-SF) across three cultural groups. *Personality and Individual Differences*, 55(7), 755–759. <https://doi.org/10.1016/j.paid.2013.06.002>

Jovanović, V. (2015). Structural validity of the Mental Health Continuum-Short Form: The bifactor model of emotional, social and psychological well-being. *Personality and Individual Differences*, 75, 154–159. <https://doi.org/10.1016/j.paid.2014.11.026>

Joyce, A. S., Ogrodniczuk, J., Piper, W. E., & McCallum, M. (2002). A test of the phase model of psychotherapy change. *Canadian Journal of Psychiatry*,



47(8), 759–766. <https://doi.org/10.1177/070674370204700807>

Kadera, S. W., Lambert, M. J., & Andrews, A. A. (1996). How Much Therapy Is Really Enough? A Session-by-Session Analysis of the Psychotherapy Dose-Effect Relationship. *The Journal of Psychotherapy Practice and Research*, 5(2), 132–51. Retrieved from <http://www.ncbi.nlm.nih.gov/pubmed/22700273>

Kazdin, A. E. (1982). *Single-case experimental designs: Methods for clinical and applied settings*. Oxford University Press. Retrieved from [https://books.google.co.uk/books/about/Single\\_case\\_Research\\_Designs.html?id=tZwacBkC2ooC&redir\\_esc=y](https://books.google.co.uk/books/about/Single_case_Research_Designs.html?id=tZwacBkC2ooC&redir_esc=y)

Kazdin, A. E. (1999). The meanings and measurement of clinical significance. *Journal of Consulting and Clinical Psychology*. <https://doi.org/10.1037/0022-006X.67.3.332>

Kazdin, A. E. (2001). Almost Clinically Significant ( $p < .10$ ): Current Measures May Only Approach Clinical Significance. *Clinical Psychology: Science and Practice*, 8(4), 455–462. <https://doi.org/10.1093/clipsy/8.4.455>

Keyes, C. L. M. (2002). The mental health continuum: from languishing to flourishing in life. *Journal of Health and Social Behavior*, 43(2), 207–222. <https://doi.org/10.2307/3090197>

Keyes, C. L. M. (2005). Mental Illness and/or Mental Health? Investigating Axioms of the Complete State Model of Health. *Journal of Consulting and Clinical Psychology*, 73(3), 539–548. <https://doi.org/10.1037/0022-006X.73.3.539>

- Keyes, C. L. M. (2013). *Mental Well-Being: International Contributions to the Study of Positive Mental Health*. Dordrecht: Springer.  
[https://doi.org/10.1007/978-94-007-5195-8\\_7](https://doi.org/10.1007/978-94-007-5195-8_7)
- Keyes, C. L. M., Eisenberg, D., Perry, G. S., Dube, S. R., Kroenke, K., & Dhingra, S. S. (2012). The Relationship of Level of Positive Mental Health With Current Mental Disorders in Predicting Suicidal Behavior and Academic Impairment in College Students. *Journal of American College Health*, 60(2), 126–133. <https://doi.org/10.1080/07448481.2011.608393>
- Keyes, C. L. M., Wissing, M., Potgieter, J. P., Temane, M., Kruger, A., & van Rooy, S. (2008). Evaluation of the mental health continuum-short form (MHC-SF) in Setswana-speaking South Africans. *Clinical Psychology and Psychotherapy*, 15(3), 181–192. <https://doi.org/10.1002/cpp.572>
- Kopta, S. M., Howard, K. I., Lowry, J. L., & Beutler, L. E. (1994). Patterns of symptomatic recovery in psychotherapy. *Journal of Consulting and Clinical Psychology*, 62(5), 1009–1016. <https://doi.org/10.1037/0022-006X.62.5.1009>
- Kopta, S. M., & Lowry, J. L. (2002). Psychometric evaluation of the behavioral health questionnaire-20: A brief instrument for assessing global mental health and the three phases of psychotherapy outcome. *Psychotherapy Research*, 12(4), 413–426. <https://doi.org/10.1093/ptr/12.4.413>
- Kratochwill, T. R., Hitchcock, J., Horner, R. H., Levin, J. R., Odom, S. L., Rindskopf, D. M., & Shadish, W. R. (2010). *Single-Case Design Technical Documentation*. Leeds, UK: What Works Clearing House. Retrieved from

[https://ies.ed.gov/ncee/wwc/Docs/ReferenceResources/wwc\\_scd.pdf](https://ies.ed.gov/ncee/wwc/Docs/ReferenceResources/wwc_scd.pdf)

Lambert, M. J., Hansen, N. B., & Finch, A. E. (2001). Patient-focused research: Using patient outcome data to enhance treatment effects. *Journal of Consulting & Clinical Psychology, 69*(2), 159–172.  
<https://doi.org/10.1037/0022-006X.69.2.159>

Lamers, S. M. A., Westerhof, G. J., Bohlmeijer, E. T., Ten Klooster, P. M., & Keyes, C. L. M. (2011). Evaluating the psychometric properties of the mental health Continuum-Short Form (MHC-SF). *Journal of Clinical Psychology, 67*(1), 99–110. <https://doi.org/10.1002/jclp.20741>

Learmonth, D., & Rai, S. (2008). Taking computerized CBT beyond primary care. *British Journal of Clinical Psychology, 47*(1), 111–118.  
<https://doi.org/10.1348/014466507X248599>

Levin, M. E., Hayes, S. C., Pistorello, J., & Seeley, J. R. (2016). Web-Based Self-Help for Preventing Mental Health Problems in Universities: Comparing Acceptance and Commitment Training to Mental Health Education. *Journal of Clinical Psychology, 72*(3), 207–25.  
<https://doi.org/10.1002/jclp.22254>

Li, P., Wang, W., Fan, C., Zhu, C., Li, S., Zhang, Z., ... Luo, W. (2017). Distraction and Expressive Suppression Strategies in Regulation of High- and Low-Intensity Negative Emotions. *Scientific Reports, 7*(1), 13062.  
<https://doi.org/10.1038/s41598-017-12983-3>

Linton, M. J., Dieppe, P., & Medina-Lara, A. (2016). Review of 99 self-report measures for assessing well-being in adults: Exploring dimensions of well-

being and developments over time. *BMJ Open*, 6(7), e010641.

<https://doi.org/10.1136/bmjopen-2015-010641>

Lovibond, P. F. (1998). Long-term stability of depression, anxiety, and stress syndromes. *Journal of Abnormal Psychology*, 107(3), 520–526.

<https://doi.org/10.1037/0021-843X.107.3.520>

Lovibond, P. F., & Lovibond, S. H. (1995). The structure of negative emotional states: Comparison of the Depression Anxiety Stress Scales (DASS) with the Beck Depression and Anxiety Inventories. *Behaviour Research and Therapy*, 33(3), 335–343. [https://doi.org/10.1016/0005-7967\(94\)00075-U](https://doi.org/10.1016/0005-7967(94)00075-U)

Lovibond, S. H., & Lovibond, P. F. (1995). *Manual for the depression anxiety stress scales* (2nd ed.). Sydney: Psychology Foundation. Retrieved from <http://latrobe.summon.serialssolutions.com/2.0.0/link/0/eLvHCXMwY2BQSLZITrJMNjBKM0xLNE8B7YwEtntNTczN01ItLIyTLFDGIJFKczchBqbUPFEGBTfXEGcPXeiOmHjoOEZ8khGw6LQAVr9GYgswL5xqgSDArBoNUqzBNaSpSag3pWphVGyZUpiioIpcrJ5opmZOQAnAiHk>

Lucock, M., Kirby, R., & Wainwright, N. (2011). A pragmatic randomized controlled trial of a guided self-help intervention versus a waiting list control in a routine primary care mental health service. *British Journal of Clinical Psychology*, 50(0144–6657 (Print)), 298–309.

<https://doi.org/10.1348/014466510x520231>

Lutz, W., Lowry, J., Kopta, S. M., Einstein, D. A., & Howard, K. I. (2001).

Prediction of dose-response relations based on patient characteristics.

*Journal of Clinical Psychology*, 57(7), 889–900.

<https://doi.org/10.1002/jclp.1057>

- Lutz, W., Schürch, E., Stulz, N., Böhnke, J. R., Schöttke, H., Rogner, J., & Wiedl, K. H. (2009). Entwicklung und psychometrische Kennwerte des Fragebogens zur Evaluation von Psychotherapieverläufen (FEP). *Diagnostica*, 55(2), 106–116. <https://doi.org/10.1026/0012-1924.55.2.106>
- Lutz, W., Stulz, N., Martinovich, Z., Leon, S., & Saunders, S. M. (2009). Methodological background of decision rules and feedback tools for outcomes management in psychotherapy. *Psychotherapy Research*, 19(4–5), 502–510. <https://doi.org/10.1080/10503300802688486>
- Magee, J. C., Harden, K. P., & Teachman, B. A. (2012). Psychopathology and thought suppression: A quantitative review. *Clinical Psychology Review*, 32(3), 189–201. <https://doi.org/10.1016/j.cpr.2012.01.001>
- Mahar, I., Bambico, F. R., Mechawar, N., & Nobrega, J. N. (2014). Stress, serotonin, and hippocampal neurogenesis in relation to depression and antidepressant effects. *Neuroscience and Biobehavioral Reviews*, 38, 173–192. <https://doi.org/10.1016/j.neubiorev.2013.11.009>
- McAlinden, N. M., & Oei, T. P. S. (2006). Validation of the Quality of Life Inventory for patients with anxiety and depression. *Comprehensive Psychiatry*, 47(4), 307–314. <https://doi.org/10.1016/j.comppsy.2005.09.003>
- Mcmanus, S., Bebbington, P., Jenkins, R., & Brugha, T. (2016). *Mental health and wellbeing in England: Adult Psychiatric Morbidity survey 2014*. Leeds: NHS Digital. Retrieved from

<http://content.digital.nhs.uk/catalogue/PUB21748/apms-2014-full-rpt.pdf>

Meyer-Lindenberg, A., & Weinberger, D. R. (2006). Intermediate phenotypes and genetic mechanisms of psychiatric disorders. *Nature Reviews Neuroscience*, 7(10), 818–827. <https://doi.org/10.1038/nrn1993>

Michael, J. (1974). A statistical inference for individual organism research: mixed blessing or curse? *Journal of Applied Behavior Analysis*, 7(4), 647–653. <https://doi.org/10.1901/jaba.1974.7-647>

Mind. (2010). *We need to talk: Getting the right therapy at the right time*. London, UK: Mind. <https://doi.org/10.1136/vr.f2649>

Mind. (2013). *We still need to talk*. London, UK: Mind. Retrieved from [https://www.mind.org.uk/media/494424/we-still-need-to-talk\\_report.pdf](https://www.mind.org.uk/media/494424/we-still-need-to-talk_report.pdf)

Mintz, J., Mintz, L. I., Arruda, M. J., & Hwang, S. S. (1992). Treatments of Depression and the Functional Capacity to Work. *Archives of General Psychiatry*, 49(10), 761–768. <https://doi.org/10.1001/archpsyc.1992.01820100005001>

Moffitt, R., & Mohr, P. (2015). The efficacy of a self-managed Acceptance and Commitment Therapy intervention DVD for physical activity initiation. *British Journal of Health Psychology*, 20(1), 115–29. <https://doi.org/10.1111/bjhp.12098>

Morgan, D. L., & Morgan, R. K. (2009). *Single-case research methods for the behavioral and health sciences*. California, USA: SAGE Publications. Retrieved from <https://us.sagepub.com/en-us/nam/single-case-research->

- Morris, N., Moghaddam, N., Tickle, A., & Biswas, S. (2017). The relationship between coping style and psychological distress in people with head and neck cancer: A systematic review. *Psycho-Oncology*, 27(3), 734–747. <https://doi.org/10.1002/pon.4509>
- Morse, J. M. (1991). Approaches to qualitative-quantitative methodological triangulation. *Nursing Research*, 40(2), 120–123. <https://doi.org/10.1097/00006199-199103000-00014>
- Mundt, J. C., Marks, I. M., Shear, M. K., & Greist, J. H. (2002). The Work and Social Adjustment Scale: A simple measure of impairment in functioning. *British Journal of Psychiatry*, 180(MAY), 461–464. <https://doi.org/10.1192/bjp.180.5.461>
- Murray, M., & Kujundzic, N. (2005). *Critical reflection: a textbook for critical thinking*. Montreal, USA: McGill-Queen's University Press. Retrieved from <https://philpapers.org/rec/MURCRA-2>
- Muto, T., Hayes, S. C., & Jeffcoat, T. (2011). The effectiveness of acceptance and commitment therapy bibliotherapy for enhancing the psychological health of Japanese college students living abroad. *Behavior Therapy*, 42(2), 323–35. <https://doi.org/10.1016/j.beth.2010.08.009>
- National Collaborating Centre for Mental Health. (2011). *Common Mental Health Disorders: Identification and Pathways to Care. NICE Clinical Guideline No. 123*. Leicester, UK: British Psychological Society. Retrieved from <https://www.ncbi.nlm.nih.gov/books/NBK92254/>

Newman, M. G., Erickson, T., Przeworski, A., & Dzus, E. (2003). Self-help and minimal-contact therapies for anxiety disorders: Is human contact necessary for therapeutic efficacy? *Journal of Clinical Psychology, 59*(3), 251–274. <https://doi.org/10.1002/jclp.10128>

National Institute for Health and Care Excellence [NICE]. (2011).

*Commissioning stepped care for people with common mental health disorders*. Retrieved from <http://www.nice.org.uk/guidance/cm41>

Nordgreen, T., Havik, O. E., Öst, L. G., Furmark, T., Carlbring, P., & Andersson, G. (2012). Outcome predictors in guided and unguided self-help for social anxiety disorder. *Behaviour Research and Therapy, 50*(1), 13–21. <https://doi.org/10.1016/j.brat.2011.10.009>

Osman, A., Wong, J. L., Bagge, C. L., Freedenthal, S., Gutierrez, P. M., & Lozano, G. (2012). The Depression Anxiety Stress Scales-21 (DASS-21): Further Examination of Dimensions, Scale Reliability, and Correlates. *Journal of Clinical Psychology, 68*(12), 1322–1338. <https://doi.org/10.1002/jclp.21908>

Öst, L. G. (2014). The efficacy of Acceptance and Commitment Therapy: An updated systematic review and meta-analysis. *Behaviour Research and Therapy, 61*, 105–121. <https://doi.org/10.1016/j.brat.2014.07.018>

Ottenbacher, K. J. (1990). Visual inspection of single-subject data: an empirical analysis. *Mental Retardation, 28*(5), 283–90. Retrieved from <http://www.ncbi.nlm.nih.gov/pubmed/2147734>

Paus, T., Keshavan, M., & Giedd, J. N. (2008). Why do many psychiatric



- disorders emerge during adolescence? *Nature Reviews Neuroscience*, 9(12), 947–957. <https://doi.org/10.1038/nrn2513>
- Paykel, E. S., Weissman, M., Prusoff, B. A., & Tonks, C. M. (1971). Dimensions of Social Adjustment in Depressed Women. *The Journal of Nervous and Mental Disease*, 152(3), 158–172. <https://doi.org/10.1097/00005053-197103000-00002>
- Penley, J. A., Tomaka, J., & Wiebe, J. S. (2002). The Association of Coping to Physical and Psychological Health Outcomes: A Meta-Analytic Review. *Journal of Behavioral Medicine*, 25(6), 551–603. <https://doi.org/10.1023/A:1020641400589>
- Persons, J. B., & Silberschatz, G. G. (1999). Are Results of Randomized Controlled Trials Useful to Psychotherapists. *Journal of Consulting Clinical Psychology*, 66(1), 126–135. Retrieved from <http://spider.apa.org/ftdocs/ccp/1998/february/ccp661126.html>
- Plumb, J. C., & Vilardaga, R. (2010). Assessing Treatment Integrity in Acceptance and Commitment Therapy: Strategies and Suggestions. *International Journal of Behavioral Consultation and Therapy*, 6(3), 263–278. <https://doi.org/10.1037/h0100912>
- Pots, W. T. M., Fledderus, M., Meulenbeek, P. A. M., Ten Klooster, P. M., Schreurs, K. M. G., & Bohlmeijer, E. T. (2016). Acceptance and commitment therapy as a web-based intervention for depressive symptoms: randomised controlled trial. *The British Journal of Psychiatry: The Journal of Mental Science*, 208(1), 69–77.

<https://doi.org/10.1192/bjp.bp.114.146068>

Pots, W. T. M., Trompetter, H. R., Schreurs, K. M. G., & Bohlmeijer, E. T. (2016). How and for whom does web-based acceptance and commitment therapy work? Mediation and moderation analyses of web-based ACT for depressive symptoms. *BMC Psychiatry*, 16(1).

<https://doi.org/10.1186/s12888-016-0841-6>

Professional Practice Board. (2013). *Diagnosis - Policy and Guideline*. Leicester, UK: The British Psychological Society.

Rassafiani, M., & Sahaf, R. (2010). Single case experimental design: An overview. *International Journal of Therapy and Rehabilitation*, 17(6), 285–289. <https://doi.org/10.12968/ijtr.2010.17.6.48151>

Ratzlaff, C., Matsumoto, D., Kouznetsova, N., Raroque, J., Ray, R., Diener, E., ... Anonymous. (2000). Individual psychological culture and subjective well-being. In E. Diener & E. M. Suh (Eds.), *Culture and subjective wellbeing* (pp. 37–59). Boston, MA: Massachusetts Institute of Technology. Retrieved from <http://www.redi-bw.de/db/ebSCO.php/search.ebscohost.com/login.aspx?direct=true&db=psyh&AN=2000-16279-002&site=ehost-live>

Reeves, T., & Stace, J. M. (2005). Improving patient access and choice: Assisted Bibliotherapy for mild to moderate stress/anxiety in primary care. *Journal of Psychiatric and Mental Health Nursing*, 12(3), 341–346. <https://doi.org/10.1111/j.1365-2850.2005.00845.x>

Rennie, D. L., Phillips, J. R., & Quartaro, G. K. (1988). Grounded theory: A

promising approach to conceptualization in psychology? *Canadian Psychology/Psychologie Canadienne*, 29(2), 139–150.  
<https://doi.org/10.1037/h0079765>

Richardson, T., Bell, L., Bolderston, H., & Clarke, S. (2018). Development and Evaluation of Acceptance and Commitment Therapy Delivered by Psychologists and Non-Psychologists in an NHS Community Adult Mental Health Service: A Preliminary Analysis. *Behavioural and Cognitive Psychotherapy*, 46(1), 121–127.  
<https://doi.org/10.1017/S1352465817000285>

Rivett, M., & Street, E. (2009). *Family Therapy. 100 Key Points and Techniques*. East Sussex, UK: Routledge.

Robitschek, C., & Keyes, C. L. M. (2009). Keyes's model of mental health with personal growth initiative as a parsimonious predictor. *Journal of Counseling Psychology*, 56(2), 321–329. <https://doi.org/10.1037/a0013954>

Roche, L., Dawson, D. L., Golijani-Moghaddam, N. G., Abey, A., & Gresswell, D. M. (2017). An Acceptance and Commitment Therapy (ACT) intervention for Chronic Fatigue Syndrome (CFS): A case series approach. *Journal of Contextual Behavioral Science*, 6(2), 178–186.  
<https://doi.org/10.1016/j.jcbs.2017.04.007>

Rocheftort, C., Baldwin, A. S., & Chmielewski, M. (2017). Experiential Avoidance: An Examination of the Construct Validity of the AAQ-II and MEAQ. *Behavior Therapy*. <https://doi.org/10.1016/j.beth.2017.08.008>

Rose, D., Fleischmann, P., Tonkiss, F., Campbell, P., & Wykes, T. (2002). User

and carer involvement in change management in a mental health context: review of the literature. *Report to the National Co-ordinating Centre for NHS Service Delivery and Organization R & D. London: Service User Research Enterprise, Institute of Psychiatry, De Crespigny Park.* Retrieved from [http://www.netscc.ac.uk/hsdr/files/project/SDO\\_FR\\_08-1201-017\\_V01.pdf](http://www.netscc.ac.uk/hsdr/files/project/SDO_FR_08-1201-017_V01.pdf)

Royal College of Psychiatrists. (2014). *Report of the Second Round of the National Audit of Schizophrenia (NAS).* Retrieved from [http://www.rcpsych.ac.uk/pdf/FINAL report for the second round of the National Audit of Schizophrenia - 8.10.14v2.pdf](http://www.rcpsych.ac.uk/pdf/FINAL%20report%20for%20the%20second%20round%20of%20the%20National%20Audit%20of%20Schizophrenia%20-%208.10.14v2.pdf)

Ryan, R. M., & Deci, E. L. (2001). On Happiness and Human Potentials: A Review of Research on Hedonic and Eudaimonic Well-Being. *Annual Review of Psychology*, 52(1), 141–166. <https://doi.org/10.1146/annurev.psych.52.1.141>

Ryff, C. D. (1989). Happiness is everything, or is it? Explorations on the meaning of psychological well-being. *Journal of Personality and Social Psychology*, 57(6), 1069–1081. <https://doi.org/10.1037/0022-3514.57.6.1069>

Saferstein, J. A. (2007). The relationship between therapists' epistemology and their therapy style, working alliance, and use of specific interventions. *Dissertation Abstracts International: Section B: The Sciences and Engineering*, 68(1–B). Retrieved from [http://ufdcimages.uflib.ufl.edu/UF/E0/01/51/41/00001/saferstein\\_j.pdf](http://ufdcimages.uflib.ufl.edu/UF/E0/01/51/41/00001/saferstein_j.pdf)

- Salkovskis, P. (1995). Demonstrating specific effects in cognitive and behavioural therapy. In M. Aveline & D. Shapiro (Eds.), *Research foundations for psychotherapy practice* (pp. 191–228). Chichester, UK: Wiley.
- Scruggs, T. E., & Mastropieri, M. A. (1998). Summarizing Single-Subject Research. *Behavior Modification*, 22(3), 221–242.  
<https://doi.org/10.1177/01454455980223001>
- Sembill, A., Vocks, S., Kosfelder, J., & Schöttke, H. (2017). The phase model of psychotherapy outcome: Domain-specific trajectories of change in outpatient treatment. *Psychotherapy Research*, 1–12.  
<https://doi.org/10.1080/10503307.2017.1405170>
- Shavitt, S., Torelli, C. J., & Riemer, H. (2011). Horizontal and vertical individualism and collectivism: Implications for understanding psychological processes. In M. J. Gelfand, C. Chiu, & Y. Hong (Eds.), *Advances in culture and psychology* (Vol. 1, pp. 309–350). Oxford, UK: Oxford University Press.  
<https://doi.org/10.1017/CBO9781107415324.004>
- Sheikh, A. I., Milne, D. L., & MacGregor, B. V. (2007). A model of personal professional development in the systematic training of clinical psychologists. *Clinical Psychology & Psychotherapy*, 14(4), 278–287.  
<https://doi.org/10.1002/cpp.540>
- Silva, H. A. da, Passos, M. H. P. Dos, Oliveira, V. M. A. de, Palmeira, A. C., Pitangui, A. C. R., & Araújo, R. C. de. (2016). Short version of the Depression Anxiety Stress Scale-21: is it valid for Brazilian adolescents?

*Einstein (São Paulo)*, 14(4), 486–493. <https://doi.org/10.1590/s1679-45082016ao3732>

Skinner, B. F. (1945). The operational analysis of psychological terms.

*Psychological Review*, 52(5), 270–277. <https://doi.org/10.1037/h0062535>

Skinner, B. F. (1974). *About Behaviourism*. New York, USA: Random House, Inc.

Smith, J. A., Flowers, P., & Larkin, M. (2009). *Interpretative phenomenological analysis theory and research*. California, USA: SAGE.

Smith, J. D. (2012). Single-case experimental designs: A systematic review of published research and current standards. *Psychological Methods*, 17(4), 510–550. <https://doi.org/10.1037/a0029312>

Spinhoven, P., Drost, J., de Rooij, M., van Hemert, A. M., & Penninx, B. W. (2014). A Longitudinal Study of Experiential Avoidance in Emotional Disorders. *Behavior Therapy*, 45(6), 840–850. <https://doi.org/10.1016/j.beth.2014.07.001>

Staner, L., Tracy, A., Dramaix, M., Genevrois, C., Vanderelst, M., Vilane, A., ... Mendlewicz, J. (1997). Clinical and psychosocial predictors of recurrence in recovered bipolar and unipolar depressives: A one-year controlled prospective study. *Psychiatry Research*, 69(1), 39–51. [https://doi.org/10.1016/S0165-1781\(96\)03021-1](https://doi.org/10.1016/S0165-1781(96)03021-1)

Stulz, N., & Lutz, W. (2007). Multidimensional patterns of change in outpatient psychotherapy: The phase model revisited. *Journal of Clinical Psychology*,

63(9), 817–833. <https://doi.org/10.1002/jclp.20397>

Stulz, N., Lutz, W., Kopta, S. M., Minami, T., & Saunders, S. M. (2013). Dose-effect relationship in routine outpatient psychotherapy: Does treatment duration matter? *Journal of Counseling Psychology*, 60(4), 593–600. <https://doi.org/10.1037/a0033589>

Sukantarat, K. T., Williamson, R. C. N., & Brett, S. J. (2007). Psychological assessment of ICU survivors: a comparison between the Hospital Anxiety and Depression scale and the Depression, Anxiety and Stress scale. *Anaesthesia*, 62(3), 239–243. <https://doi.org/10.1111/j.1365-2044.2006.04948.x>

Szczygieł, D., & Maruszewski, T. (2015). Why expressive suppression does not pay? Cognitive costs of negative emotion suppression: The mediating role of subjective tense-arousal. *Polish Psychological Bulletin*, 46(3), 336–349. <https://doi.org/10.1515/ppb-2015-0041>

Tackman, A. M., & Srivastava, S. (2016). Social responses to expressive suppression: The role of personality judgments. *Journal of Personality and Social Psychology*, 110(4), 574–591. <https://doi.org/10.1037/pspp0000053>

Tennant, A., Penta, M., Tesio, L., Grimby, G., Thonnard, J.-L., Slade, A., ... Phillips, S. (2004). Assessing and Adjusting for Cross-Cultural Validity of Impairment and Activity Limitation Scales Through Differential Item Functioning Within the Framework of the Rasch Model. *Medical Care*, 42(Supplement), I-37. <https://doi.org/10.1097/01.mlr.0000103529.63132.77>

The Centre for Economic Performance's Mental Health Policy Group. (2006).

*The Depression Report: A New Deal for Depression and Anxiety Disorders.*

London, UK. Retrieved from [www.lse.ac.uk/designunit](http://www.lse.ac.uk/designunit)

The Health Scrutiny Committee for Lincolnshire. (2016). *Adult Clinical*

*Psychology and Psychotherapies Service*. Retrieved from

[https://lincolnshire.moderngov.co.uk/documents/s13768/Adult Clinical](https://lincolnshire.moderngov.co.uk/documents/s13768/Adult%20Clinical%20Psychology%20and%20Psychotherapies%20Service.pdf)

*Psychology and Psychotherapies Service.pdf*

The King's Fund, & The Health Foundation. (2015). *Making change happen: a*

*Transformation Fund for the NHS*. London, UK: The Health Foundation.

Retrieved from

[https://www.kingsfund.org.uk/sites/default/files/field/field\\_publication\\_file/m](https://www.kingsfund.org.uk/sites/default/files/field/field_publication_file/making-change-possible-a-transformation-fund-for-the-nhs-kingsfund-healthfdn-jul15.pdf)

*aking-change-possible-a-transformation-fund-for-the-nhs-kingsfund-*

*healthfdn-jul15.pdf*

The King's Fund. (2015). *Mental health under pressure*. London, UK: The King's

Fund. Retrieved from

[https://www.kingsfund.org.uk/sites/default/files/field/field\\_publication\\_file/m](https://www.kingsfund.org.uk/sites/default/files/field/field_publication_file/mental-health-under-pressure-nov15_0.pdf)

*ental-health-under-pressure-nov15\_0.pdf*

The Mental Health Taskforce. (2016). *The five year forward view for mental*

*health*. Retrieved from [https://www.england.nhs.uk/wp-](https://www.england.nhs.uk/wp-content/uploads/2016/02/Mental-Health-Taskforce-FYFV-final.pdf)

*content/uploads/2016/02/Mental-Health-Taskforce-FYFV-final.pdf*

Törnqvist, L., Vartia, P., & Vartia, Y. O. (1985). How should relative changes be measured? *American Statistician*, 39(1), 43–46.

<https://doi.org/10.1080/00031305.1985.10479385>

Trompetter, H. R., Bohlmeijer, E. T., Veehof, M. M., & Schreurs, K. M. G.



(2015). Internet-based guided self-help intervention for chronic pain based on Acceptance and Commitment Therapy: a randomized controlled trial.

*Journal of Behavioral Medicine*, 38(1), 66–80.

<https://doi.org/10.1007/s10865-014-9579-0>

Trompetter, H. R., Lamers, S. M. A., Westerhof, G. J., Fledderus, M., & Bohlmeijer, E. T. (2017). Both positive mental health and psychopathology should be monitored in psychotherapy: Confirmation for the dual-factor model in acceptance and commitment therapy. *Behaviour Research and Therapy*, 91, 58–63. <https://doi.org/10.1016/j.brat.2017.01.008>

Tull, M. T., Gratz, K. L., Salters, K., & Roemer, L. (2004). The role of experiential avoidance in posttraumatic stress symptoms and symptoms of depression, anxiety, and somatization. *Journal of Nervous and Mental Disease*, 192(11), 754–761.

<https://doi.org/10.1097/01.nmd.0000144694.30121.89>

Vickers, A. J. (2001). The use of percentage change from baseline as an outcome in a controlled trial is statistically inefficient: A simulation study.

*BMC Medical Research Methodology*, 1(1), 1–4.

<https://doi.org/10.1186/1471-2288-1-6>

Vilardaga, R. (2014). Technical, practical and analytic innovations in single case designs for contextual behavioral scientists. *Journal of Contextual Behavioral Science*, 3(2), 136–137.

<https://doi.org/10.1016/j.jcbs.2014.05.002>

Vilardaga, R., Bricker, J., & McDonell, M. (2014). The promise of mobile

- technologies and single case designs for the study of individuals in their natural environment. *Journal of Contextual Behavioral Science*, 3(2), 148–153. <https://doi.org/10.1016/j.jcbs.2014.03.003>
- Ware, J. E., & Sherbourne, C. D. (1992). The MOS 36-Item Short-Form Health Survey (SF-36). *Medical Care*, 30(6), 473–483. <https://doi.org/10.1097/00005650-199206000-00002>
- Watson, D., & Clark, L. A. (1984). Negative affectivity: the disposition to experience aversive emotional states. *Psychological Bulletin*, 96(3), 465–490. <https://doi.org/10.1037/0033-2909.96.3.465>
- Weich, S., McBride, O., Hussey, D., Exeter, D., Brugha, T., & McManus, S. (2011). Latent class analysis of co-morbidity in the Adult Psychiatric Morbidity Survey in England 2007: Implications for DSM-5 and ICD-11. *Psychological Medicine*, 41(10), 2201–2212. <https://doi.org/10.1017/S0033291711000249>
- Weissman, M. M. (1981). The Assessment of Social Adjustment. An Update. *Archives of General Psychiatry*, 38(11), 1250. <https://doi.org/10.1001/archpsyc.1981.01780360066006>
- Weissman, M. M., & Bothwell, S. (1976). Assessment of social adjustment by patient self-report. *Archives of General Psychiatry*, 33(9), 1111–1115. <https://doi.org/10.1001/archpsyc.1976.01770090101010>
- Weissman, M. M., Klerman, G. L., Paykel, E. S., Prusoff, B., & Hanson, B. (1974). Treatment effects on the social adjustment of depressed patients. *Archives of General Psychiatry*, 30(6), 771–778.

<https://doi.org/10.1001/archpsyc.1974.01760120033006>

Weissman, M. M., Olfson, M., Gameroff, M. J., Feder, A., & Fuentes, M. (2001).

A comparison of three scales for assessing social functioning in primary care. *American Journal of Psychiatry*, 158(3), 460–466.

<https://doi.org/10.1176/appi.ajp.158.3.460>

Weissman, M. M., Prusoff, B. A., Thompson, W. D., Harding, P. S., & Myers, J.

K. (1978). Social Adjustment by Self-Report in a Community Sample and in Psychiatric Outpatients. *The Journal of Nervous and Mental Disease*, 166(5), 317–326. <https://doi.org/10.1097/00005053-197805000-00002>

Wells, A. (1997). *Cognitive therapy of anxiety disorders: a practice manual and conceptual guide*. Chichester, UK: Wiley & Sons.

Whitehorn, J. C. (1959). Goals of psychotherapy. In E. A. Rubinstein & M. B.

Parloff (Eds.), *Research in psychotherapy* (pp. 1–9). Washington, DC: American Psychological Association.

World Health Organisation. (1995). The World Health Organization quality of life

assessment (WHOQOL): Position paper from the World Health Organization. *Social Science and Medicine*, 41(10), 1403–1409.

[https://doi.org/10.1016/0277-9536\(95\)00112-K](https://doi.org/10.1016/0277-9536(95)00112-K)

Wicksell, R. K., Lekander, M., Sorjonen, K., & Olsson, G. L. (2010). The

Psychological Inflexibility in Pain Scale (PIPS) - Statistical properties and model fit of an instrument to assess change processes in pain related disability. *European Journal of Pain*, 14(7), 771.e1-771.e14.

<https://doi.org/10.1016/j.ejpain.2009.11.015>

- Williams, C., Wilson, P., Morrison, J., McMahon, A., Andrew, W., Allan, L., ... Tansey, L. (2013). Guided Self-Help Cognitive Behavioural Therapy for Depression in Primary Care: A Randomised Controlled Trial. *PLoS ONE*, 8(1). <https://doi.org/10.1371/journal.pone.0052735>
- Wilson, K. G., Sandoz, E. K., Kitchens, J., & Roberts, M. (2010). The Valued Living Questionnaire: Defining and Measuring Valued Action within a Behavioral Framework. *The Psychological Record*, 60(2), 249–272. <https://doi.org/10.1007/BF03395706>
- Wise, E. A. (2004). Methods for Analyzing Psychotherapy Outcomes: A Review of Clinical Significance, Reliable Change, and Recommendations for Future Directions. *Journal of Personality Assessment*, 82(1), 50–59. [https://doi.org/10.1207/s15327752jpa8201\\_10](https://doi.org/10.1207/s15327752jpa8201_10)
- Wolgast, M. (2014). What does the acceptance and action questionnaire (AAQ-II) really measure? *Behavior Therapy*, 45(6), 831–839. <https://doi.org/10.1016/j.beth.2014.07.002>
- World Health Organization. (2006). Constitution of the World Health Organisation. In World Health Organisation (Eds.), *Basic documents* (45th ed., pp. 1–18). Geneva, Switzerland: World Health Organization.
- Zhang, L., & Han, K. (2009). How to Analyze Change from Baseline: Absolute or Percentage Change? *Högskolan Dalarna*, 1–17. Retrieved from <https://pdfs.semanticscholar.org/9331/9f9e57224b38219385f2acdc4b1e3cf3dbae.pdf>
- Zigmond, A. S., & Snaith, R. P. (1983). The Hospital Anxiety and Depression

Scale. *Acta Psychiatrica Scandinavica*, 67(6), 361–370.

<https://doi.org/10.1111/j.1600-0447.1983.tb09716.x>



## **Appendices**





## Appendix A

### Search Strategies

Table A1

*Search Strategy for following databases: PsychARTICLES (Full Text), PsychINFO (1806 to July week 1 2016), Embase (1974 to 2016 July 13), AMED (1985 to July 2016), OvidMEDLINE(R) (In process and other non-indexed citations and OvidMEDLINE(R)), and the Joanna Briggs Institute (EBP Database current to July 06 2016).*

---

|    |   |
|----|---|
| 1  | exp "acceptance and commitment therapy"/  |
| 2  | (acceptance and commitment therapy).mp. [mp=ab, hw, ti, tx, bt, ct, sh, tc, id, ot, tm, cc, sa, tn, dm, mf, dv, kw, nm, kf, px, rx, an, ui] |
| 3  | exp ACT/  |
| 4  | exp self-help/  |
| 5  | self help.mp. [mp=ab, hw, ti, tx, bt, ct, sh, tc, id, ot, tm, cc, sa, tn, dm, mf, dv, kw, nm, kf, px, rx, an, ui]                           |
| 6  | exp bibliotherapy/  |
| 7  | bibliotherapy.mp. [mp=ab, hw, ti, tx, bt, ct, sh, tc, id, ot, tm, cc, sa, tn, dm, mf, dv, kw, nm, kf, px, rx, an, ui]                       |
| 8  | web based.mp. [mp=ab, hw, ti, tx, bt, ct, sh, tc, id, ot, tm, cc, sa, tn, dm, mf, dv, kw, nm, kf, px, rx, an, ui]                           |
| 9  | exp internet based/   |
| 10 | internet based.mp. [mp=ab, hw, ti, tx, bt, ct, sh, tc, id, ot, tm, cc, sa, tn, dm, mf, dv, kw, nm, kf, px, rx, an, ui]                      |
| 11 | exp application/  |
| 12 | application.mp. [mp=ab, hw, ti, tx, bt, ct, sh, tc, id, ot, tm, cc, sa, tn, dm, mf, dv, kw, nm, kf, px, rx, an, ui]                         |
| 13 | mobile.mp. [mp=ab, hw, ti, tx, bt, ct, sh, tc, id, ot, tm, cc, sa, tn, dm, mf, dv, kw, nm, kf, px, rx, an, ui]                              |
| 14 | exp internet/   |
| 15 | internet.mp. [mp=ab, hw, ti, tx, bt, ct, sh, tc, id, ot, tm, cc, sa, tn, dm, mf, dv, kw, nm, kf, px, rx, an, ui]                            |
| 16 | exp computer/   |
| 17 | computer.mp. [mp=ab, hw, ti, tx, bt, ct, sh, tc, id, ot, tm, cc, sa, tn, dm, mf, dv, kw, nm, kf, px, rx, an, ui]                            |

---

- 
- |    |  |
|----|--|
| 18 | 4 or 5 or 6 or 7 or 8 or 9 or 10 or 11 or 12 or 13 or 14 or 15 or 16 or 17 |
| 19 | 1 or 2 or 3  |
| 20 | 18 and 19  |
| 21 | remove duplicates from 20  |
- 

Table A2

*Search Strategy for Cochrane Central Register of Controlled Trials 12, June 2016*

- 
- |    |                                       |
|----|---------------------------------------|
| 1  | acceptance and commitment therapy     |
| 2  | ACT                                   |
| 3  | self help                             |
| 4  | bibliotherapy                         |
| 5  | web based                             |
| 6  | internet based                        |
| 7  | application                           |
| 8  | mobile                                |
| 9  | internet                              |
| 10 | computer                              |
| 11 | 1 OR 2                                |
| 12 | 3 OR 4 OR 5 OR 6 OR 7 OR 8 OR 9 OR 10 |
| 13 | 11 AND 12                             |
-

## **Appendix B**

### **Ethical Approval**

#### **B.1. Email Correspondence and Confirmation from SOPREC**

---

**Email From:** SOPREC

**Sent:** 03 November 2016 14:07

**Subject:** Ethic approval decision – PSY161746

This is to confirm that your application titled *Guided Acceptance and Commitment Therapy (ACT) self-help for clients on a waiting list for psychological therapy* which was submitted for ethical approval, has been Approved by the School of Psychology Research Ethics Committee.

---

**Email to:** SOPREC

**Sent:** 06 January 2017 11:34

**Subject:** RE: Ethics application decision - PSY161746

Following SOPREC granting ethical approval for the application titled Guided Acceptance and Commitment Therapy (ACT) self-help for clients on a waiting list for psychological therapy I submitted it to IRAS/HRA for further ethical approval.

Following my attendance at the ethics panel I received provisional ethical approval subject to a few considerations and changes. I have therefore slightly amended my research to meet the requirements of the ethics panel.

I have, therefore, attached a letter summarising the changes along with the original provisional feedback from the panel. I have also attached the relevant documents that have also been amended for reference.

If possible, could you advise me as to whether the SOPREC are still willing to grant ethical approval following these changes?

---

**Email From:** SOPREC

**Sent:** 09 February 2017 09:54

**Subject:** FW: Ethics application decision - PSY161746

Your application for your changes has been approved by SOPREC. Please note that any future correspondence regarding ethical approval should go to [soprec@lincoln.ac.uk](mailto:soprec@lincoln.ac.uk) and not individual accounts of staff.

Your email was not dealt with previously as you had not sent the request to the committee.

---

**Email To:** SOPREC

**Sent:** 16 February 2017 14:48

**Subject:** RE: Ethics application decision - PSY161746

I am pleased to inform you that I now have full ethical approval from REC and HRA (See attached). Please be aware that the information sheet and consent form have changed slightly as HRA asked for the IRAS ID number to be added. I have therefore attached them to this email so that you have an up to date copy of each.

Please could you confirm receipt of this email and let me know if you require any further information before I commence my study.

---

**Email From:** SOPREC

**Sent:** 20 February 2017 14:06:49

**Subject:** RE: Ethics application decision - PSY161746

Thanks for this. I can confirm no further information is required.

---

**Email To:** SOPREC

**Sent:** 19 April 2017 16:58

**Subject:** Re: Ethics application decision - PSY161746

I am writing in regards to the application titled Guided Acceptance and Commitment Therapy (ACT) self-help for clients on a waiting list for psychological therapy.

I have already got ethical approval for this study from SOPREC, REC, and HRA. However, I have recently had to make a minor amendment to my research in order to include two more recruitment bases (There are now 5 in total). These two extra bases are within the same psychology service within LPFT. They are at:

The Archway Centre  
Carlton Centre  
Outer Circle Lincoln  
Lincolnshire  
LN2 4WA

Trinity House  
Trinity Street  
Gainsborough  
DN21 1JD

I have contacted both REC and HRA and they have both confirmed that they are happy for the study to continue.

Please could you confirm that the University Ethics Committee is happy with this amendment.

---

**Email To:** SOPREC

**Sent:** 06 July 2017 09:43

**Subject:** URGENT: Ethics application decision - PSY161746

I am writing in regards to the application titled Guided Acceptance and Commitment Therapy (ACT) self-help for clients on a waiting list for psychological therapy.

Following amendments that were made on 19th April 2017 (See below email for details), I have been unable to find the email confirming that SOPREC are happy with the amendments (REC and HRA approval for the amendments were gained prior to 19th April). Please could the email of confirmation be sent to me again as soon as possible.

---

**Email From:** SOPREC

**Sent:** 07 July 2017 11:29

**Subject:** RE: Ethics application decision - PSY161746

We can confirm that the committee are happy with the changes.

---

## **B.2. Email and Written Correspondence and Confirmation from REC**

---

**Email From:** REC Committee

**Sent:** 23 December 2016 10:30

**Subject:** REC Reference: 16/YH/0508, IRAS Project ID: 215424 - Provisional Opinion

Further to your recent application for ethical approval for a new research project, please find attached the letter confirming the Committee's opinion. Please note that hard copies will not be sent unless specifically requested.

---

***Health Research Authority***

**Yorkshire & The Humber – Leeds West Research Ethics Committee**

Jarrow Business Centre

Rolling Mill Road

Jarrow

NE32 3DT

23 December 2016

**Study Title:**           **Guided Acceptance and Commitment Therapy (ACT)  
self-help for clients on a waiting list for psychological  
therapy**

**REC reference:**   **16/YH/0508**

**Protocol number:** **N/A**

**IRAS project ID:**   **215424**

The Research Ethics Committee reviewed the above application at the meeting held on 09 December 2016. Thank you for attending to discuss the application.

## **Provisional opinion**

The Committee is unable to give an ethical opinion on the basis of the information and documentation received so far. Before confirming its opinion, the Committee requests that you provide the further information set out below.

Authority to consider your response and to confirm the Committee's final opinion has been delegated to a meeting of the Sub-Committee of the REC.

## **Further information or clarification required**

1. Consideration of the use of validated outcome measures.
2. Consideration of the use of a British Self-Help book as an adapted intervention.
3. Clarification as to what would be done with audio recordings.
4. Revision of the Participant Information Sheet throughout to clearly explain and walk potential participants through the study and what would be asked of them, and to ensure language used is lay friendly and appropriate given the sensitivities of the client group.
5. Revision to the Participant Information Sheet to list NHS Crisis as the first option for support.
6. Confirmation that the information sheet and consent form for the assessment stage would not be used.
7. The Committee noted that the response to IRAS A35 which indicated that the participant and all identifiable data would be withdrawn from the study in the event that capacity was lost. Members recommended that the applicant opted to retain data obtained with consent up until the point that capacity was lost, as this would be permissible given that the participant would hence be withdrawn from the study.

*Note.* Remaining six pages omitted for purposes of thesis



---

**Email From:** REC Committee

**Sent:** 08 February 2017 14:08

**Subject:** 16/YH/0508 IRAS ID: 215424 Favourable Upon Review of Further Information 08.02.2017

I hope that you're well. Further to your recent response to the Committee's provisional opinion, please find attached confirmation of the Committee's favourable opinion of your study.

---

***Health Research Authority***

**Yorkshire & The Humber – Leeds West Research Ethics Committee**

Jarrow Business Centre

Rolling Mill Road

Jarrow

NE32 3DT

**Please note: This is the favourable opinion of the REC only and does not allow you to start your study at NHS sites in England until you receive HRA Approval**

08 February 2017

**Study Title:** Guided Acceptance and Commitment Therapy (ACT)  
self-help for clients on a waiting list for psychological therapy

**REC reference:** 16/YH/0508

**Protocol number:** N/A

**IRAS project ID: 215424**

Thank you for your letter of 27 January 2017, responding to the Committee's request for further information on the above research and submitting revised documentation.

The further information was considered in correspondence by a Sub-Committee of the REC. A list of the Sub-Committee members is attached.

We plan to publish your research summary wording for the above study on the HRA website, together with your contact details. Publication will be no earlier than three months from the date of this opinion letter. Should you wish to provide a substitute contact point, require further information, or wish to make a request to postpone publication, please contact [hra.studyregistration@nhs.net](mailto:hra.studyregistration@nhs.net) outlining the reasons for your request.

### **Confirmation of ethical opinion**

On behalf of the committee, I am pleased to confirm a **favourable ethical opinion** for the above research on the basis described in the application form, protocol and supporting documentation as revised, subject to the conditions specified below.

*Note.* Remaining five pages omitted for purposes of thesis

---

**Email To:** REC Committee

**Sent:** 03 April 2017 16:24:37

**Subject:** Re: REC Reference: 16/YH/0508, IRAS Project ID: 215424

I am writing in regards to my research on Acceptance and Commitment Therapy Guided Self Help (REC ref: 16/YH/0508; IRAS ID: 215424) for which I have received ethical approval and am currently in the recruitment phase.

My current recruitment catchment area in Lincolnshire East Psychology Services that are based in Boston, Louth, and Skegness. Upon discussion with my supervisors and the managers of the psychology services we feel that it would be appropriate to expand this catchment area to include Lincolnshire West: Lincoln and Grantham. We are hoping that this would be a minor amendment to the protocol and we wish to ensure that ethical approval would remain if this change was put into place.

Please could you advise me on how best to confirm if this amendment is okay with REC and HRA?

---

**Email To:** REC Committee

**Sent:** 04 April 2017 08:54

**Subject:** Re: REC Reference: 16/YH/0508, IRAS Project ID: 215424

Sorry, in regards to my last email it has just been spotted that I made an error. Lincolnshire West is Lincoln and Gainsborough, not Lincoln and Grantham.

Apologies for the confusion.

---

**Email From:** REC Committee

**Sent:** 05 April 2017 14:00

**Subject:** RE: REC Reference: 16/YH/0508, IRAS Project ID: 215424

Thanks for your e-mail. As your study is not a Clinical Trial, this would just be a minor amendment to the study protocol. The REC does not need to be notified of minor changes to the protocol, but you should submit this in writing to [hra.amendments@nhs.net](mailto:hra.amendments@nhs.net) with any amended study documentation that forms part of this amendment.

---

### **B.3. Email and Written Correspondence and Confirmation from HRA and LPFT**

---

**Email From:** HRA

**Sent:** 16 February 2017 12:10

**Subject:** IRAS 215424 - Guided Acceptance and Commitment Therapy Self-Help. Outcome of Application for HRA

**RE: IRAS 215424. Guided Acceptance and Commitment Therapy Self-Help. Outcome of Application for HRA Approval**

Please find attached a letter informing you of the outcome of your application for HRA Approval.

Please read all attached documents with care.

You may now commence your study at those participating NHS organisations in England that have confirmed their capacity and capability to undertake their role in your study (where applicable). Detail on what form this confirmation should take, including when it may be assumed, is given in Appendix B of the HRA Approval letter.

If you have any queries, please do not hesitate to contact me.

---

16 February 2017

**Study Title:**           **Guided Acceptance and Commitment Therapy (ACT)  
self-help for clients on a waiting list for psychological  
therapy**

**REC reference:**   **16/YH/0508**

**Protocol number:** **N/A**

**IRAS project ID:**   **215424**

I am pleased to confirm that **HRA Approval** has been given for the above referenced study, on the basis described in the application form, protocol, supporting documentation and any clarifications noted in this letter.

*Note.* Remaining seven pages omitted for purposes of thesis

---

**Email From:** HRA

**Sent:** 16 February 2017 14:50

**Subject:** IRAS 215424 - Guided Acceptance and Commitment Therapy Self-Help - confirmation of capacity and capability LPFT

### **Guided Acceptance and Commitment Therapy Self-Help**

This email confirms that Lincolnshire Partnership NHS Foundation Trust (LPFT) has the capacity and capability to deliver the above referenced study. Please find attached our agreed Statement of Activities as confirmation.

We agree to start this study on 16 February 2017 and confirm the site is now open.

Please do not hesitate to contact me if there is anything further you need to know. We wish you every success with the study in Lincolnshire.

---

**Email From:** HRA

**Sent:** 19 April 2017 16:06

**Subject:** RE: IRAS 215424. Confirmation of Amendment Categorisation as Category B

**Confirmation of Amendment Assessment of study – Guided Acceptance and Commitment Therapy Self-Help**

**IRAS Project ID:** 215424

**Short Study Title:** Guided Acceptance and Commitment Therapy Self-Help

**Date complete amendment submission received:** 05/04/2017

**Amendment No./ Sponsor Ref:** Addition of 2 new sites

**Amendment Date:** 05/04/2017

**Amendment Type:** Non-substantial

Please accept this email as confirmation that Lincolnshire Partnership NHS Foundation Trust has received information and documents for non-substantial amendment (addition of 2 new LPFT clinical sites) related to the above study details.

The Trust accepts the amendment and NHS permission continues unchanged.

---

**Appendix C**  
**Information Sheet**

**Guided Acceptance and Commitment Therapy (ACT) self-help for clients  
on a waiting list for psychological therapy**

**Information Sheet**

**Version 3**

**Date: 15/02/17**

**IRAS ID: 215424**

**REC ref: 16/YH/0508**

**Background:**

NHS waiting lists for psychological therapy are currently very high. Individuals on waiting lists are likely to be going through a difficult time and so services are beginning to offer *guided self-help* to those awaiting psychological therapy.

*Guided Self-Help: A form of psychological intervention where an individual receives a self-help book/worksheet along with regular phone contact with a clinician who can guide them through the content.*

Our research has focused on adapting a self-help book (*Get Out of Your Mind and into Your Life*, Hayes and Smith, 2005) for use within a guided self-help intervention for individuals on the waiting list. The book is based on a form of therapy called Acceptance and Commitment Therapy. Acceptance and Commitment Therapy is often referred to as “ACT”.



*Acceptance and Commitment Therapy (“ACT”): A form of therapy that focuses on acceptance and mindfulness strategies to help individuals distance themselves from their thoughts and move towards a life based on values.*

This guided self-help package is now being offered to a number of people on the waiting list within East Lincolnshire. It consists of weekly self-help material being received through the post, along with regular phone contact and guidance.

The aims of our research are:

- 1. To investigate its impact on well-being, symptoms, and life-functioning*
- 2. To better understand the processes behind any changes observed*

If you are reading this information sheet then it is likely that you have had a discussion with an NHS clinician about trying out this guided self-help package yourself. If this is the case, then you may be eligible to take part in research that is currently being conducted at the University of Lincoln as part of the Trent Doctorate in Clinical Psychology program. The purpose of this information sheet is to give you information about the research so that you can make an informed decision about whether you are willing to take part.

### **So why have we contacted you?**

In order to meet the aims of our research, we hope to recruit a number of participants who are eligible to complete the guided self-help package. Participants will be required to take part in the guided self-help package as well as complete weekly *outcome measures*. They will then attend a meeting with the lead researcher, Kate French, to reflect on how helpful they found the guided self-help.

*Outcome Measure: A set of questions that individuals can complete to measure thoughts, feelings, or behaviours at any one point in time. By completing the measures on a number of different dates, changes in thoughts, feelings, or behaviours can be tracked.*

We have contacted you as you are currently on a waiting list for psychological therapy, and you may be interested in trying out this guided self-help intervention.

### **Who is organising the research?**

The research is being organised and funded by the University of Lincoln. All research in the NHS is looked at by independent group of people, called a Research Ethics Committee, to protect your interests. This study has been reviewed and given favourable opinion by the Yorkshire & Humber – Leeds West Research Ethics Committee (REC Ref: 16/YH/0508).

### **What to Expect:**

After signing consent, you will be asked for your contact details (for postage of the self-help material) along with the following information:

#### *Demographic Information.*

- Age
- Gender
- Ethnicity
- Marital Status

#### *Clinical Information.*

- Presenting Difficulties/Diagnoses
- Dates and Types of previous treatment

- Treatment plan post-self-help

Two weeks after signing consent, you will be contacted by telephone to confirm if you are still willing to take part in the research. If you decline, any data collected will be destroyed and you will be removed from the research, however, you will remain on the waiting list for therapy.

If you still consent to take part, you will then be asked to begin completing four outcome measures on a *weekly* basis (preferably at the weekend). These outcome measures will measure:

- Your emotional, psychological, and social well-being
- The severity of any symptoms you may be experiencing
- Your current life-functioning
- Changes in psychological flexibility and value based living

There will also be a fifth measure that looks at psychological flexibility which will be completed at the initial meeting with Kate French, on the 5<sup>th</sup> week of the intervention, and during the final meeting with Kate at the end of the research.

You can choose to either complete these outcome measures via post, online, or on a phone application. If you choose to complete via post you will be provided with pre-paid envelopes for you to return your answers to the research team each week. In your initial meeting with Kate French she will show you how to complete these measures.

*These measures will be taken on a weekly basis for the duration of your participation.*

After completing these outcome measures on a weekly basis for a minimum of 3 weeks (maximum 7), you will begin receiving chapters of the self-help book through the post. These will be posted on a Friday and will be expected to arrive to your home on the Monday of each week. You will be posted a total of 10 'packs' of self-help material over 10 weeks. The self-help material has been

divided up so that you should be able to complete each 'pack' by the end of each week.

You will also begin receiving weekly 30-minute long phone call from an Assistant Psychologist. They will talk with you about the self-help material you have received that week and give guidance if needed. Dates and times of these phone calls will be arranged in your initial meeting with Kate French, however, they are likely to be Wednesdays or Thursdays. You will be given the schedule, and the name of the Assistant Psychologist, prior to beginning the intervention

The 10 weeks will, therefore, likely follow the below schedule:

| Monday                                       | Tuesday | Wednesday | Thursday  | Friday | Saturday | Sunday                            |
|--|---------|-----------|---|--------|----------|-----------------------------------|
| Receive self-help material through the post. |         |           | Receive phone call from Assistant Psychologist. |        |          | Complete weekly outcome measures. |

Following the completion of the 10 weeks, the lead researcher will contact you and arrange to meet with you for an informal 30-minute meeting. This will be to find out your opinion on the intervention and how helpful you found it. *Please be aware that this meeting will be recorded.* You will also be asked to complete the outcome measures one last time. This meeting will be held at the same place where you initially met Kate French (at your local NHS psychology service).

### **What are the possible disadvantages of taking part?**

Participants need to be aware that the completion of the outcome measures will need to be done on a weekly basis. This is not expected to take any longer than 30 minutes. Participants are also encouraged to ensure they engage with the self-help material as much as possible in order to gain its full

benefits. Therefore, participants need to be willing to put in their own time for the duration of the research.

If a participant is required to travel for any meetings with Kate French, their travel expenses will be reimbursed at a rate of 24p per mile.

Taking part in this research will **not** remove you from the waiting list for psychological therapy. Your GP and the Adult Psychology and Psychotherapy Service (To whom you are currently referred) will be informed of your participation.

### **If you have any problems during/following the intervention:**

Whilst the evidence for Acceptance and Commitment Therapy is strong, we recognise that it is not helpful for everyone and it can impact on an individual's thoughts and feelings. We encourage participants to be open in regards to their mental health when receiving the phone support from the assistant psychologist.

Participants may wish to seek external support. Below lists contact details for various support services:

- NHS Crisis (Single Point of Access): 0303 123 4000
- Samaritans (24 hours): 08457 909090, [www.samaritans.org](http://www.samaritans.org)
- You may also wish to visit your GP/health care professional.

### **How your information will be used:**

The research will follow ethical and legal practice in regards to the handling of information about you. Your participation in the study, and any identifiable information, will be kept confidential.

The data from the outcome measures and the post-intervention meeting will be anonymised and then analysed alongside the data from the other participants. Please be aware that should you withdraw from the research, any

data collected up until that point will be unable to be erased and may still be used in the research analysis.

The data collected for the study will be looked at by authorised persons from the University of Lincoln who are organising the research. They may also be looked at by authorised people to check that the study is being carried out correctly. All will have a duty of confidentiality to you as a research participant and we will do our best to meet this duty.

All information which is collected about you during the course of the research will be kept **strictly confidential**, stored in a secure and locked office, and on a password protected database.

Your personal data (address, telephone number) will be kept for 7 years after the end of the study so that we are able to contact you about the findings of the study *and possible follow-up studies* (unless you advise us that you do not wish to be contacted). All other data (research data) will be kept securely for 7 years. After this time your data will be disposed of securely. During this time, all precautions will be taken by all those involved to maintain your confidentiality, only members of the research team will have access to your personal data.

*Please be aware that if you disclose anything to the research team which we feel puts you or anyone else at any risk, we may feel it necessary to report this to the appropriate persons.*

#### **Right to Withdraw:**

You are under no obligation to take part in this research. If you consent to taking part but then change your mind at any point, you are under no obligation to continue your participation. You may withdraw your participation at any point during the intervention without any negative consequences.

If you wish to continue the intervention, but no longer want to participate in the research then this is okay. Withdrawing your participation in the research will not prevent you from accessing the intervention.

All data collected will be anonymised. This means that we will be unable to trace which contributions to the research are yours. Therefore, if you withdraw from the study, please be aware that you will be unable to withdraw any contributions that you have made prior to that point in time.

### **Making a complaint:**

The research is being organised and funded by the University of Lincoln. If you wish to make a complaint in regards to the research, you can contact the School of Psychology Research Ethics Committee using the following contact details:

School of Psychology Research Ethics Committee (SOPREC)  
College of Social Science  
University of Lincoln  
Brayford Pool  
Lincoln  
Lincolnshire  
LN6 7TS

Email: [soprec@lincoln.ac.uk](mailto:soprec@lincoln.ac.uk)

### **What you need to do next:**

Please take your time to ask Kate French any questions about the research in your initial meeting. Do not consent to take part in the research until you have read this information sheet and had your questions answered. You may wish to have a look at the outcome measures and familiarise yourself with the timetable of participation.

If you are wanting to take part in this research, then please read and sign the enclosed consent form and return to Kate French. Please be aware that you are under no obligation to take part and you can withdraw at any time.

Thank you for taking the time to read through this information sheet. If you have any questions or require further information following the initial meeting with the researcher, then please contact us using the details at the bottom of this letter.

Kind Regards,

***Kate French***

**Contact Details:**

*Chief Investigator:*

Kate French: [11591146@students.lincoln.ac.uk](mailto:11591146@students.lincoln.ac.uk)

*Supervised By:*

Dr Nima Moghaddam: [NMoghaddam@lincoln.ac.uk](mailto:NMoghaddam@lincoln.ac.uk)

Dr Thomas Schröder: [Thomas.Schroder@nottingham.ac.uk](mailto:Thomas.Schroder@nottingham.ac.uk)

*Postal Contact Details:*

Department of Clinical Psychology

Bridge House

University of Lincoln

Brayford Pool

Lincoln

Lincolnshire

LN6 7TS



## Appendix D

### Consent Form



### CONSENT FORM

#### Version 3

**Date: 15/02/17**

**Title of Study:** Guided Acceptance and Commitment Therapy (ACT) self-help for clients on a waiting list for psychological therapy

**IRAS ID:** 215424

**REC ref:** 16/YH/0508

**Name of Researcher:** Kate French

**Name of Participant:** \_\_\_\_\_

**Participant Contact Details: -**

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

**Please initial box**

1. I confirm that I have read and understand the information sheet version number 2 dated 05/01/16 for the above study and have had the opportunity to ask questions. ☐

2. I understand that my participation is voluntary and that I am free to withdraw at any time, without giving any reason, and without my medical care or legal rights being affected. I understand that should I withdraw within the next two weeks then **all** of my data will be erased. I understand that, following this two-week period, any information collected cannot be erased and that this information may still be used in the project analysis. ☐
3. I understand that relevant sections of my medical notes and data collected in the study may be looked at by authorised individuals from the University of Lincoln, the research group and regulatory authorities where it is relevant to my taking part in this study. I give permission for these individuals to have access to these records and to collect, store, analyse and publish information obtained from my participation in this study. I understand that such information will be kept for 7 years before being securely disposed of, and that any personal details will be kept confidential. ☐
4. I understand and agree that multiple outcome measures will be taken during the research for the analysis of the impact of the intervention on my well-being. ☐
5. **Consent for storage and use in possible future research (Optional)** ☐  
I agree that the samples I have given and the information gathered about me can be stored by the administration staff at the University of Lincoln, for possible use in future studies. I understand that some of these studies may be carried out by researchers other than current team of researchers, who ran the first study, including researchers working for commercial companies. Any samples or data used will be anonymised, and I will not be identified in anyway.
6. I understand that discussions held in the post-intervention interview will be audibly recorded and transcribed. I agree that the recording ☐

can be sent through a secure system to an external transcription service, and that this service will be bound under a confidentiality agreement to keep my information confidential.

7. I understand that, should I lose my capacity to consent during my participation, I will be removed from the research. I understand that any data collected prior to this point cannot be erased and that this information may still be used in the project analysis. ☐
7. I agree to my GP being informed of my participation in this study. ☐
8. I agree to take part in the above study. ☐

|                               |       |           |
|-------------------------------|-------|-----------|
| _____                         | _____ | _____     |
| Name of Participant           | Date  | Signature |
| _____                         | _____ | _____     |
| Name of Person taking consent | Date  | Signature |

*3 copies: 1 for participant, 1 for the project notes, and 1 for the medical notes*

## Appendix E

### Demographic Form

|  |  |
|--|--|
| Participant ID   |  |
| <i>Please conceal ID number when creating photocopy for service.</i> |  |
| Full Name  |  |
| House Address  |  |
| Phone Number   |  |
| Back-up Number   |  |
| Email Address  |  |
| Birth Date   |  |
| Age  |  |
| Gender   |  |
| Ethnicity  |  |
| Marital Status   |  |
| Presenting Difficulties/Diagnosis                                    |  |
| Dates and types of previous treatment                                |  |
| Treatment plan post-self-help  |  |
| GP Name and Address  |  |

## Appendix F

### GP Letters

GP ADDRESS

PSYCHOLOGY SERVICE ADDRESS

DATE

Dear Dr X,

**Re: Mr/Miss/Mrs X; NHS No.; D.O.B.;**

We are writing to inform you that the above-named patient has recently consented to take part in a new guided self-help intervention that is currently being offered to a number of clients on the waiting list for psychological therapy. This intervention is based on Acceptance and Commitment Therapy and is a ten-week program where the patient will receive a weekly pack of 1-2 chapters from the book "Get out of your mind and into your life" by Hayes and Smith (2005). Alongside this, they will also be receiving weekly 30-minute phone calls from an Assistant Psychologist to guide them through the material and exercises.

This intervention is currently being offered as part of research being conducted by the University of Lincoln into the efficacy and processes of guided ACT self-help. Therefore, alongside the intervention, patients will also be asked to complete outcome measures on a weekly basis. These are estimated to take 30 minutes a week. The patient will also have a semi-structured interview with the lead researcher, Kate French, at the end in order to reflect on any changes that may have occurred and to debrief from the research process.

As Mr/Miss/Mrs X has already consented to take part in the research, there is nothing further you need to do. However, if you have any queries or concerns about their involvement then please do not hesitate to get in touch with the service and/or research team (details below).

Miss Kate French  
Trent Doctorate in Clinical Psychology  
Bridge House  
University of Lincoln  
Brayford Pool  
Lincoln  
Lincolnshire  
LS6 7TS  
15591146@students.lincoln.ac.uk

Please be aware that participating in the intervention will NOT remove  
Mr/Miss/Mrs X from the waiting list for psychological therapy.

Kind Regards,

Clinical Psychologist

GP ADDRESS

PSYCHOLOGY SERVICE ADDRESS

DATE

Dear Dr X,

**Re: Mr/Miss/Mrs X; NHS No.; D.O.B.;**

As you are aware, the above-named patient recently consented to take part in a guided self-help acceptance and commitment therapy intervention as part of research being conducted by the University of Lincoln.

We are writing to inform you that the above-named patient has now completed their involvement within the research. As previously explained, they are still on the waiting list for psychological therapy within the service and their place on the waiting list has not been impacted upon by their involvement.

If you have any queries or concerns about their involvement, then please do not hesitate to get in touch with the service and/or research team (details below).

Miss Kate French  
Trent Doctorate in Clinical Psychology  
Bridge House  
University of Lincoln  
Brayford Pool  
Lincoln  
Lincolnshire  
LS6 7TS  
15591146@students.lincoln.ac.uk

Kind Regards,

Clinical Psychologist

## **Appendix G**

### **Book Permissions**

---

**Email To:** Author of self-help book

**Sent:** 27 February 2016 12:40

**Subject:** IMPORTANT: New Research using your Self-Help Book

My name is Kate French and I am currently a Trainee Clinical Psychologist on the Trent Doctorate in the UK. I am contacting you because I am interested in using your book 'Get Out of Your Mind and Into Your Life. The New Acceptance and Commitment Therapy.' in my research project. However, I did not want to use any content from the book without first asking your permission!

To give a bit of context, there is currently massive waiting list for individual psychological therapy and many individuals are left waiting for a number of years. I want to be able to provide some guided self-help interventions to help those individuals survive the wait. Due to ACT being trans-diagnostic it made sense to develop the guided self-help using ACT material. The guided self-help would be individuals receiving different materials each week and having regular phone support and guidance from the Assistant Psychologists within the service (NHS Lincolnshire Partnership Foundation Trust, UK).

My research aims to do the following four things:

- 1) Develop the ACT guided self-help intervention
- 2) Assess the feasibility of using the intervention within the NHS (Focus group and initial trials)
- 3) Assess the efficacy of the intervention through a single-case experimental design
- 4) Synthesise the findings with service evaluation data and qualitative feedback from clients and the service



For the ACT self-help intervention, I would love to be able to use material from your book. I will likely be changing some things in order to fit it into the service provision and reflect any feedback that I get from the focus group and initial trials. However, I do not feel comfortable using the content of the book without discussing it with you first. Your book will be referenced multiple times throughout the research, and I will happily send you the write up of the research when it has been completed.

Please feel free to share any concerns you may have and ask me any questions. I look forward to hearing your opinion on the idea! I have CC'ed in my two research supervisors, so feel free to contact them if you need to.

---

**Email From:** Author of self-help book

**Sent:** 27 February 2016 12:40

**Subject:** IMPORTANT: New Research using your Self-Help Book

You can certainly use the ideas/metaphors etc.

If you are reproducing many sections of the book without change, that is a copyright issue. I don't hold it ... New Harbinger does. They are good people though. They sell the book at cost for people doing research on it.

So, you can't just Xerox it en mass ... but could you tweak the language and put it in a web based program or whatever ... sure.

Could you have a therapist manual that covering this word for word? Sure.

Could you create a set of handouts? I think so.

But if it is not to a creepy level, I personally would just acknowledge the source and do the project.

---

**Copyright Information checked on New Harbinger Website:**  
**[www.newharbinger.com/rights-and-permissions](http://www.newharbinger.com/rights-and-permissions)**

“Thesis and dissertation writers and other students: properly cited, limited use of material from New Harbinger books in theses and dissertations and in academic work typically does not require permission, so long as you don't plan to publish and distribute copies of your academic work for sale (releasing your work to thesis and dissertation subscription databases intended for research, though, is fine).”

---

## Appendix H

### Weekly Scripts for Guided Phone calls

#### Week One

##### Chapters Included

- Introduction (p. 1-9)
- Chapter 1 (p. 10-18)

##### Summary

Introduces existentialist stance. Pain is normal and everyone has it. However, you can choose whether to suffer and struggle against it. Problems arise when we let pain get in the way of the life we value. Learning to recognize your pain/suffering and radical acceptance of it. Acceptance is *not* the same as giving up, but rather living alongside your pain in order to live a valued life.

##### Metaphors

- Choosing to leave the battlefield rather than win the war (p. 2-3)
- Better to get *with* the quicksand rather than struggle and sink (p. 3-5)

##### Exercises

- **Your Suffering Inventory (p. 14-15):** Create a list of painful and difficult issues you experience. Then rank in terms of impact of life. Then draw lines linking the issues that are connected with each other.
- **The Pain is Gone, Now What? (p. 16-17):** Use items from suffering inventory and complete the following sentence: If ... wasn't such a problem, then I would... Do for a few different items on the inventory.

## Discussion

- Initial thoughts on the intervention. Any shock about existentialist stance?
- Check understanding that acceptance is not same as giving up
- Have they completed **Your Suffering Inventory**? How did they find it? Did it bring anything up?
- Have they completed **The Pain is Gone, Now What**? How did they find it? Did it bring anything up?
- Anything they have struggled with/not understood? Clarify
- How are they feeling? Any safeguarding concerns?
- If research client, then prompt to complete measures on time
- Confirm date of next delivery/next phone call

## Week Two

### Chapters Included

- Why Language Leads to Suffering (p. 19-37)

### Summary

Introduces Relational Frame Theory and the benefits (communication, problem solving) and disadvantages (mental distress) of language. It covers the derived relations between the Gub-Gub going “Woo” to demonstrate our automatic relational skills. It then explains how such language ‘relations’ can cause distress before giving examples of how thought suppression doesn’t work. Gives a strong emphasis on how avoidance of thoughts and emotions doesn’t work and asks reader to identify their own coping strategies so they can begin recognising those strategies that maybe aren’t working. Finishes by introducing the idea of cognitive diffusion through the mind-train metaphor.

### Metaphors

- **The Shark Tank Polygraph.** Don’t get anxious otherwise you will fall in the tank! (p. 34)
- **The Mind Train.** Can you get off the train and choose for yourself the direction you want your life to go in (p. 36-37)

### Exercises

- **Relate Anything to Anything Else (p. 20-21):** Write down two concrete nouns (e.g. animal or object). Practice relating them in different ways such as ‘how are they alike’, ‘how is one better than the other’, etc. Demonstrates that the mind can always make relations, however weird they may be.

- **A Screw, a Toothbrush, and a Lighter (p. 24-25):** Imagine you had a screw that you need to get out of a board but you only have a toothbrush and a lighter to do so. How would you do it? Demonstrates the benefit of the mind's ability to use time travel for problem solving.
- **A Yellow Jeep (p. 27-28):** Imagine a yellow jeep. Now try to suppress all thoughts of the jeep and record how much you thought of it. Now allow yourself to think anything, how much did you think of the yellow jeep this time? Demonstrates how thought suppression can make our thoughts occur more often.
- **Don't Think About Your Thoughts (p. 29):** Write down a thought that causes you suffering. Do the same with this thought as you did with the Yellow Jeep exercise above.
- **Coping Strategies Worksheet (p.31-32):** Write down painful thoughts and feelings and current strategies and then rate the strategies for how effective they are in the short- and long- term.
- **Coping Strategies Diary (p. 32-33):** A way to record distressing thoughts/feelings in a diary form to help you to work out what your current coping strategies are.

## Discussion

- Initial thoughts on this week's material. Recognition that some of the theory based discussions may be confusing or feel irrelevant.
- Have they completed **Relate Anything to Anything Else?** How did they find it? Did it bring anything up? Check understanding that it should demonstrate how well the mind can make random connections.
- Have they completed **A Screw, a Toothbrush, and a Lighter?** How did they find it? Did it bring anything up? Check understanding that it demonstrates the benefit of the mind's ability to use time travel for problem solving.
- Have they completed **A Yellow Jeep** and **Don't Think About Your**

**Thoughts?** How did they find them? Did they bring anything up?  
Check understanding that thought suppression doesn't work. Link to **Shark Tank Polygraph**.

- Have they completed **Coping Strategies Worksheet/Diary**? How did they find it? Did it bring anything up? Have they identified any coping strategies that they use that aren't helpful?
- Anything they have struggled with/not understood? Clarify
- How are they feeling? Any safeguarding concerns?
- If research client, then prompt to complete measures on time
- Confirm date of next delivery/next phone call

## Week Three

### Chapters Included

- The Pull of Avoidance (p. 38-48)
- Letting Go (p. 49-59)

### Summary

Introduces the idea that society has raised us to suppress and avoid our negative thoughts and emotions. Strong emphasis on examples of how and why avoidance doesn't work. It then asks the reader to give themselves a break and understand that it is not their fault that they have spent so long struggling and avoiding. Moves on to introduce simple mindful techniques of observing internal experiences. Then the second half of the content focuses on describing willingness, how lack of willingness is linked to distress, and creating reasons and motivation to be more willing in life.

### Metaphors

- **The Metaphor of the Hungry Tiger (p. 42):** The tiger is your anxiety. The more you feed it, the bigger and scarier it will get. Demonstrates how avoidance strategies can make the situation worse in the long run.
- **The Chinese Finger Trap (p. 42-43):** The harder you pull, the smaller the tube becomes, and the stronger it holds your fingers. Demonstrates how the more you struggle to avoid experiences/emotions/thoughts, the more trapped you will be.

### Exercises

- **Why We Do What Can't Work (p. 38-41):** Five questions that get



you thinking about how your upbringing and society may have contributed to the false belief that you must control your thoughts and feelings in order to be happy.

- **The Blame Game (p.43-44):** Write down examples of blaming yourself or others for negative events, and score how 'empowering' that blame was. Demonstrates how unhelpful blame is.
- **Judging Your Own Experience: Examining What Works (p. 45-46):** Daily diary rating the pain, struggle, and workability of each day. Asks the reader to practice observing thoughts/feelings rather than controlling them.
- **What Are You Feeling and Thinking Now? (p. 47-48):** List any thoughts and feelings you are having now about the difficulties that motivated you to take part in this self-help.
- **Why Willingness? (p.55):** Write down four of your own reasons for why you want to accept willingness into your life.
- **Be Willingly Out of Breath (p.56-58):** Mindful activity of holding the breath for as long as possible and observing the physical and mental experiences that occur as a result. Reader was asked to do this initially on page 49 and can see whether they were able to hold their breath for longer following reading about 'willingness'.

## Discussion

- Initial thoughts on this week's material. Recognition that society teaches us to hold in and avoid negative thought/emotions, but this self-help is stating that we should willingly allow these negative thoughts/emotions into our lives.
- Have they completed **Why We Do What Can't Work**? How did they find it? Did it bring anything up?
- Have they completed **The Blame Game**? How did they find it? Did it bring anything up? Were they able to think of times that they had blamed themselves or others? Did it work?

- Have they completed **Judging Your Own Experience: Examining What Works** and **What Are You Feeling and Thinking Now**? How did they find them? Did they bring anything up? What did they observe? Were they able to sit with these observations without getting caught up in them?
- Have they completed **Why Willingness**? How did they find it? Did it bring anything up? What reasons have they thought of? Check understanding of what willingness means.
- Have they completed **Be Willingly Out of Breath**? How did they find it? Did it bring anything up? Did they manage to hold their breath for longer?
- Anything they have struggled with/not understood? Clarify
- How are they feeling? Any safeguarding concerns?
- If research client, then prompt to complete measures on time
- Confirm date of next delivery/next phone call

## Week Four

### Chapters Included

- The Trouble with Thoughts (p. 60-82)

### Summary

Introduces the idea of how we take thoughts as fact and can blindly follow them without realising it. Explains that thoughts have evolutionary advantages but as a result we can't turn off 'thinking'. Therefore, reader is encouraged to instead observe thoughts and how they can be helpful in problem solving, but unhelpful when the thoughts and emotions are themselves relationally described as "bad". Therefore, can the reader begin to observe thoughts and emotions without judging them? The reader is then asked to record their thoughts and emotions over four days and create mini-formulations of triggers, reactions, and thoughts. It then finishes with a mindful exercise of observing the mind-train.

### Metaphors

- Thoughts are like signs on the road and, like when we zone out while driving, we tend to follow them as fact even if they take us the wrong direction. Instead of trying to scribble on the signs and change their content, ACT instead encourages observation of the signs but to choose your own path.
- **We Are Fish Swimming in Our Thoughts (p. 62):** Thoughts are to us like water is to fish. They are there all the time so we stop noticing their presence and impact on our life. We can't live without thoughts (like fish can't live without water) but we can become aware of them.
- We swallow our saliva all the time, but it is disgusting imagining drinking it from a glass. Although the physiological functions of saliva are not aversive, the functions of language can make them so.

Demonstrates power of cognitive fusion. (p. 63-64).

- Reference again to the Mind-Train. This time standing on bridge over three slow moving mining train. One contains sensations, perceptions, and emotions. One contains thoughts and evaluations. One contains urges to act or avoid. Metaphor of how our mind tries to pull us onto the trains rather than observe. (p. 80-81).

## Exercises

- **What Are You Thinking Right Now? (p. 62-63):** Write down all the thoughts you are having right now. Demonstrates how our minds are constantly talking all day and we don't even notice it until we pay attention.
- **Your Daily Pain Diary (p. 70-77):** For four consecutive days, the reader is asked to record events that caused distress (anxiety/pain/sadness/etc.). They record triggering events, the experienced distress, and the thoughts that came up for them.
- **Looking at Your Daily Pain Diary (p. 78-79):** Look back over the completed Pain Diary and look for any patterns. Write down situations that most often trigger distress, what the form of distress tends to be, and the most recurring thoughts that tend to appear. Are there any patterns or formulations that you can spot?
- **Watching the Mind-Train (p. 80-82):** Mindful exercise of picturing the three mind-trains (sensations, thoughts, urges) but remaining on the bridge to observe rather than get swept along. Record the content of each of the three trains. Then record what content was able to sweep you off of the bridge.

## Discussion

- Initial thoughts on this week's material. Recognition that observing and getting in touch with negative thoughts and emotions can feel

painful when we have avoided them for so long.

- Have they completed **What Are You Thinking Right Now**? How did they find it? Did it bring anything up? Did they find that their mind was really chatty?
- Have they completed **Your Daily Pain Diary** and **Looking at Your Daily Pain Diary**? How did they find them? Did they bring anything up? What patterns were they able to find? Maybe help them to formulate these patterns.
- Have they completed **Watching the Mind-Train**? How did they find it? Did it bring anything up? What content did they have on their trains? What content did they find most easily swept them off the bridge and onto the train?
- Have they completed **Be Willingly Out of Breath**? How did they find it? Did it bring anything up? Did they manage to hold their breath for longer?
- Anything they have struggled with/not understood? Clarify
- How are they feeling? Any safeguarding concerns?
- If research client, then prompt to complete measures on time
- Confirm date of next delivery/next phone call

## Week Five

### Chapters Included

- Having a Thought Versus Buying a Thought (p. 83-101)
- If I'm Not My Thoughts, Then Who Am I? (p. 102-120)

### Summary

Introduces the idea of cognitive defusion and how thoughts should be observed rather than followed. Focuses on giving the reader multiple techniques on how to distance themselves from their thoughts. Moves on to consider self-conceptualisations and the three senses of self: Conceptualised Self, Self and a Process of ongoing Self-Awareness, and the Observing Self. Begins to introduce mindfulness exercises to allow the individual to experience the observing self.

### Metaphors

- Imaging thoughts as if they are leaves floating along a stream. Goal is to allow the leaves/thoughts to keep of flowing rather than picking them up. (p. 91-92).
- **The Chess Metaphor (p. 111-112).** The pieces on the board are your positive and negative emotions/feelings. Each side is fighting to win. Instead of being in the war can you instead be the chessboard? You are still in touch with all the pieces but you no longer have to struggle.

### Exercises:

- Initial thoughts on this week's material. Recognition that some of the cognitive defusion exercises often feel a bit silly, but that they can be powerful in changing how we relate to our thoughts. Reminder that such defusion techniques should be practiced in the long term until it becomes natural.

- **Say the Word “Milk” as Fast as You Can (p. 86-87):** Repeat the word “milk” over and over for 25 seconds. Record how the meaning of the word changes the more you repeat it. Then try it again with a negative thought you have about yourself. Demonstrates how words are just words and have no power over you.
- **Labelling Your Thoughts (p. 90):** Practice labelling your thoughts, feelings, memories, sensations, and urges. For example, “I am having the thought that...” Encourages reader to utilise this type of self-talk to enable them to maintain distance from their thoughts.
- **Floating Leaves on a Moving Stream (p. 91-92):** Imagine a stream with leaves flowing along. Each time a thought pops up, put it on a leaf. If you get caught up with a leaf, then notice it happening and step back to side of the stream and begin again. Write down your experiences doing this exercise.
- **Describing Thoughts and Feelings (p. 92-94):** Think of a painful thought and give it a colour, size, shape, etc. Reflect on how you feel about this ‘creature’ and any feelings of resistance you may have. Then give this feeling/resistance a colour, size, shape, etc. Can you ‘drop the rope’ and let these creatures back in?
- **Exploring the Difference Between Descriptions and Evaluations (p. 96-97):** Practice writing the ‘descriptions’ and ‘evaluations’ separately for a tree, a movie, and a friend. Then do the same for a painful emotion you have experienced.
- **Creating Your Own Cognitive Defusion Techniques (p. 100):** Write down a thought you are struggling with. Then think of a time when you might notice the same words but not get caught in a struggle (e.g. as a headline in The Sun). Then try and right your thought in a similar way (e.g. as if it was a headline). Reflect on the experience.
- **Retelling Your Own Story (p. 106-108):** Write the story of your suffering, the main problems, history, etc. Go back and underline the facts. Now take just these facts and write a completely different story.

Demonstrates how it is not necessarily the facts that determine our 'life story' but rather our conceptualization of those facts.

- **Experientially, I'm Not That (p. 113):** Stare at a spot on the wall whilst breathing deeply. Experience that you are not the wall, and remain mindful of the wall by returning your thoughts to it each time your mind drifts. Feel the difference between the 'observing self' and the 'events observed'. Practice with other objects then close your eyes and practice it with your thoughts.
- **Tracking Your Thoughts in Time (p. 116-117):** As thoughts pop into your head, using your finger along the timeline, track whether the thoughts are past, present, or future. Reflect on experience.
- **Watching Bodily Sensations (p. 117-118):** Observe your physical bodily sensations and at the same time point to the words that describe it and the location on the body drawn in the book. Reflect on the experience.
- **Defusing from Implicit Evaluations (p. 119-120):** Become mindful of the present moment and observe your experiences. At the same time observe any judgments you make and use your finger to track their strength and whether they are good or bad on the diagram in the book. Reflect on the experience.

## Discussion

- Initial thoughts on this week's material. Recognition that observing and getting in touch with negative thoughts and emotions can feel painful when we have avoided them for so long.
- Have they completed **Say the Word "Milk" as Fast as You Can?** How did they find it? Did it bring anything up? Did the meaning of the words change?
- Have they completed **Labelling Your Thoughts?** How did they find it? Did it bring anything up? Are they going to keep practicing 'I am having the thought that...'?



- Have they completed **Floating Leaves on a Moving Stream**? How did they find it? Did it bring anything up? Was it easy or hard to not get swept away with the stream?
- Have they completed **Describing Thoughts and Feelings**? How did they find it? Did it bring anything up? What did their creatures look like? Was it easy or hard to let the creatures back in?
- Have they completed **Exploring the Difference Between Descriptions and Evaluations**? How did they find it? Did it bring anything up? Can they explain the difference between descriptions and evaluations?
- Have they tried any of the Cognitive Defusion Techniques listed on pages 98-99? Which ones did they like? Were they able to think up any of their own in **Creating Your Own Cognitive Defusion Techniques**?
- Have they completed **Retelling Your Own Story**? How did they find it? Did it bring anything up? Were they able to create a whole new story with the facts?
- Have they completed **Experientially, I'm Not That**? How did they find it? Did it bring anything up? Did it feel strange to stare at the wall? Did they manage to experience the observing self? How did that feel?
- Have they completed **Tracking Your Thoughts in Time, Watching Bodily Sensations, and Defusing from Implicit Evaluations**? How did they find them? Did they bring anything up? How easy was it to track such experiences? Did they learn anything about how their feelings, sensations, judgments, etc. change over time?
- Anything they have struggled with/not understood? Clarify
- How are they feeling? Any safeguarding concerns?
- If research client, then prompt to complete measures on time
- Confirm date of next delivery/next phone call

## Week Six

### Chapters Included

- Mindfulness (p. 121-137)

### Summary

This section introduces a variety of different mindfulness activities that can be used in different situations with elements of defusion. It emphasises the importance of not getting caught up in your thoughts and has an in-depth description of how to meditate

### Exercises

- **Be Where You Are (p.123-125):** Whole body scan with a space at the end to reflect on their experience.
- **Silent Walking (p.125):** Mindfully walking around a garden or street and being mindful of thoughts that appear whilst walking. Option to label thoughts and say aloud to help with defusion e.g. saying “stress, stress, stress” if you identify stressful thoughts during the walk.
- **Cubbyholing (p.125-126):** Verbally categorising what comes up in the mind as either; emotion, thought, bodily sensation, evaluation, urge, or memory.
- **Eating Raisins (p.126-127):** Mindfully eating raisins. Space at the end to reflect on their experience.
- **Drinking Tea (p.127-128):** Mindfully drinking a cup of tea with space at the end to reflect on their experience.
- **Eating Mindfully (p.129):** Mindfully eating a meal, paying attention to each bite of food.
- **Listening to Classical Music (p.129-130):** Mindfully listen to a piece of music, paying attention to the various instruments and noticing how

the mind may try to get swept away with the overall music.

- **Be Mindful of Your Feet While You Read This (p.130-131):** Read a nursery rhyme out loud whilst being mindful of your feet.
- **Just Sitting (p.132-136):** In-depth description of how to meditate, taking into consideration when, where, and how.

## Discussion

- Initial thoughts on this week's material. Recognition of how difficult it is to not get caught up in our thoughts.
- Have they completed **Be Where You Are**? How did they find it? Did it bring anything up? What did they notice?
- Have they completed **Silent Walking**? How did they find it? Did it bring anything up? What did they notice?
- Have they completed **Cubbyholing**? How did they find it? Did it bring anything up? What did they notice?
- Have they completed **Eating Raisins**? How did they find it? Did it bring anything up? What did they notice?
- Have they completed **Drinking Tea**? How did they find it? Did it bring anything up? What did they notice?
- Have they completed **Eating Mindfully**? How did they find it? Did it bring anything up? What did they notice?
- Have they completed **Listening to Classical Music**? How did they find it? Did it bring anything up? What did they notice? Were they able to focus their attention on the specific sounds and instruments individually?
- Have they completed **Be Mindful of Your Feet While Reading This**? How did they find it? What did they notice? Were they able to remain mindful while reading the nursery rhyme? Did they notice their attention shifting between the two?
- Have they completed **Just Sitting**? How did they find it? What did they notice?

- Anything they have struggled with/not understood? Clarify
- How are they feeling? Any safeguarding concerns?
- If research client, then prompt to complete measures on time
- Confirm date of next delivery/next phone call

## Week Seven

### Chapters Included

- What Willingness Is and Is Not (p.138-152)

### Summary

This section introduces the link between acceptance and willingness. It explains how we can struggle to resist, ignore, and buy into our pain, but describes a way in which we can live alongside it and to give up the struggle with it. It explains how we might not want pain, and actively try to avoid painful experiences, but becoming willing to experience these regardless.

### Metaphors

- **Aunt Ida (p.143-144):** Aunt Ida represents the feelings, memories and thoughts that emerge that you don't like. The metaphor explains that by attempting to make her go away, you are sacrificing your quality of life and ability to experience the more positive things. By not struggling with the pain, you are allowing it to come and go as it pleases. It also explains how willingness is not the same as wanting.

### Exercises

- **What needs to be accepted? (p.140-142):** Write down the memories, images, sensations, emotions, thoughts, and behaviours that you are avoiding. Then write down what avoiding these things costs you.
- **Willingness is not conditional (p.144-145):** Write down some examples of times or experiences in half-measures simply wouldn't work.

- **The Pain in Your Head (p.149-150):** In the diagram of the head, write down troublesome emotions, memories, thoughts, sensations, or urges.

## Discussion

- Initial thoughts on this week's material. Recognition the willingness can involve embracing pain, rather than resisting or ignoring it. Understanding the links to acceptance.
- Have they completed **What Needs to Be Accepted**? How did they find it? Did it bring anything up? Were they able to think of experiences they had been avoiding?
- Have they completed **Willingness Is Not Conditional**? How did they find it? Did it bring anything up? Were they able to think of times when half measures were not enough and why?
- Have they completed **The Pain in Your Head**? How did they find it? Did it bring anything up?
- Anything they have struggled with/not understood? Clarify
- How are they feeling? Any safeguarding concerns?
- If research client, then prompt to complete measures on time
- Confirm date of next delivery/next phone call

## Week Eight

### Chapters Included

- Willingness: Learning How to Jump (p.153-174)

### Summary

For the purpose of this section, the reader is asked to think of a “target” which is referred back to throughout this section. The target should be a painful emotion, thought, belief, or memory that has caused avoidance. It then introduces willingness and the idea of letting all experiences/feelings into their life, including this target, regardless of any judgments that may previously have been made (e.g., Good/bad). By using cognitive defusion techniques of physicalizing their target the client is then encouraged to take the new ‘form’ or ‘creature’ willingly into their life without judgment. Finishes by suggesting small graded exposure techniques to practice such willingness in real life scenarios.

### Exercises

- **The Willingness Scale Worksheet (p.154-156):** The reader is asked to think of something that is causing pain and are avoiding. It then asks them to consider the two dials referred to in week 2 and evaluating their willingness and limitations to their willingness.
- **Physicalising (p.157-158):** The reader is asked to imagine a painful thought, emotion, or belief as a physical item in front of them. It encourages them to visualise it fully and to see it as a pile of rubbish – not defining them or as self-referential.
- **Giving Your Target a Form Works (p.158-161):** The reader is asked multiple questions encouraging them to allow their target to take on a physical form. It asks them to consider some of the negative reactions we have to the target and to then do the same with those. It then asks them to take them back inside them willingly like welcoming a guest.

- **The Tin-Can Monster (p.162-170):** Get in touch with the ‘target’ previously identified earlier on. Break it up into physical sensations, emotions, urges, thoughts, and memories. Then break down your reactions to each of these experiences. Reflect on any connections between the physical sensations, emotions, urges, thoughts, memories, and current experiences. Each of the pieces are parts of the Tin-Can Monster. Can you allow each of these parts into your life without allowing them to play a destructive role?
- **Acceptance in Real-Time (p.170-174):** List some scenarios that could cause the target to show itself and rank them 1-10. Asks the reader to complete graded exposure work with these scenarios.

## Discussion

- Initial thoughts on this week’s material. Recognition that being willing/accepting of bad thoughts/feelings is easier said than done. Confirmation that it is not acceptance of bad things that may have happened to them (e.g. Nothing condones abuse etc.) but rather acceptance of bad feelings etc. that are currently in their life.
- Have they completed **The Willingness Scale Worksheet**? How did they find it? Did it bring anything up? Did they find the radio dial metaphor easy to understand?
- Have they completed **Physicalising** and **Giving Your Target a Form Works**? How did they find them? Did they bring anything up? Were they able to give forms to their target? How easy was it to accept the target back?
- Have they completed **The Tin-Can Monster**? How did they find it? Did it bring anything up? Recognition that it was a big exercise. What do they think about their tin-can monster now?
- Have they completed **Why Willingness**? How did they find it? Did it bring anything up? What reasons have they thought of? Check understanding of what willingness means.



- Have they completed **Acceptance in Real-Time**? How did they find it? Did it bring anything up? Have they thought of ways to begin trying willingness in real life scenarios? What scenarios are they going to try and when? Can they try something this week and report it back to you?
- Anything they have struggled with/not understood? Clarify
- How are they feeling? Any safeguarding concerns?
- If research client, then prompt to complete measures on time
- Confirm date of next delivery/next phone call

## Week Nine

### Chapters Included

- What are Values? (p. 175-187)
- Choosing Your Values (p. 188-201)

### Summary

Begins by reminding the reader that regardless of thoughts/feelings/etc. they are ultimately in charge of the direction that they want their life to take.

Introduces the idea of values and spends time to clearly define what they are and are not. It then moves on to get the reader to begin to consider what they want their life to be about, how do they want to be remembered by others? The ten value domains are then introduced and the reader asked to write down and rank their chosen values.

### Metaphors

- Instead of allowing the passengers on your bus (Thoughts and feelings) to decide where you drive (How you live your life), can the reader instead accept that the passengers are there but choose their own route to drive regardless of what they are saying? (p. 175-176)

### Exercises

- **Making a Choice (p.179-181):** Asks reader to choose between the letters A and Z. Can they make the choice regardless of any reasons that may pop up into their head? Gets them to keep trying again and again and reflects on how the mind hates not making choices based on reason. Demonstrates how with practice we can follow values regardless of what our minds say.
- **Attending Your Own Funeral (p.157-158):** The reader is asked to imagine that they have died. They are then asked to write two

eulogies: (1) what they are scared others might say and what the person giving the eulogy might secretly be thinking (2) what they would really want the eulogy to say. They are then asked to write what they would want to see written on their headstone.

- **Ranking and Testing Your Values (p.199-200):** The reader is asked to write down their values in each of the ten domains. Then, for each value, they rank its level of importance and the level that it is currently being met. The difference in these values is then calculated to work out the values that need some more time dedicated to them if possible.

## Discussion

- Initial thoughts on this week's material. Recognition that it is quite morbid when asking reader to imagine they have died. Have they coped with this okay? What are their initial thoughts on the ideas of living by values? Have they grasped what values are?
- Have they completed **Making a Choice**? How did they find it? Did it bring anything up? How much did their mind struggle against the idea of making a choice regardless of what thoughts were coming up?
- Have they completed **Attending Your Own Funeral**? How did they find it? Did it bring anything up? Recognition that it is a morbid exercise and that it can be upsetting if as a result you find out that you are not living the life you want to be remembered for. Did it reveal anything for them about what they want to change?
- Have they completed **Ranking and Testing Your Values**? How did they find it? Did it bring anything up? What values did they create? Check that each one is a value (e.g. a direction rather than a goal). Also, remind client that you can't ever expect to manifest every value to the level of 10, but rather life is about increasing the levels over time and making recognition to the fact that the importance of each value can fluctuate over time.

- Anything they have struggled with/not understood? Clarify
- How are they feeling? Any safeguarding concerns?
- If research client, then prompt to complete measures on time
- Confirm date of next delivery/next phone call

## Week Ten

### Chapters Included

- Committing to Doing It (p. 202-223)
- Choosing Your Values (p. 224-227)

### Summary

Begins by asking the reader if they are now ready to willingly step into a new life direction and states that this week's content is about making those steps. It then introduces the role of goals as a way to make such values a reality. It asks the reader to pick one value and to then begin creating long term goals that are then broken into short-term goals. These are then broken down further into actions and the reader is encouraged to start these actions *today*. Makes recognition to potential barriers and helps reader to think of ways to overcome these. Concludes by summarising the work conducted and the overall messages that ACT encourages.

### Metaphors

- Instead of allowing the passengers on your bus (Thoughts and feelings) to decide where you drive (How you live your life), can the reader instead accept that the passengers are there but choose their own route to drive regardless of what they are saying? (p. 175-176)

### Exercises

- **Goals Worksheet (p. 205-207):** Asks reader to select a value and create 2+ long term goals that will help them to manifest that value. They are then asked to break each of the long-term goals into 3 short term goals.
- **Making Goals Happen Through Action (p. 208-209):** The reader is

reminded that goals are only helpful if they are willing to plan and complete the actions that are required to meet it. Asked to take a short-term goal and break it down into actions and sub-actions. Encourages reader to start these actions *today*.

- **Expected Barriers (p. 211):** The reader is asked to write down the potential barriers that may get in their way. Next to each barrier they are asked to write what ACT strategies they could use to overcome such barriers.
- **Valued Living (p. 219-221):** Asks reader to record the importance and manifestations of each of their values over the next few weeks. Allows them monitor how such thing can fluctuate as well as be a prompt to work more on a value that may be being missed.

## Discussion

- Double check that client aware that this is last week/last phone call
- Initial thoughts on this week's material. Did they find it easy or hard to create goals? Check understanding that values are directions whilst goals are ways in which to walk in that direction. Values are not obtainable whilst goals are.
- Have they completed **Goals Worksheet** and **Making Goals Happen Through Action**? How did they find them? Did they bring anything up? What value did they choose and what goals, actions, and sub-actions did they create? Check that goals/actions are SMART. Encourage client to repeat with their other values if they have not already done so. Has the client identified anything that they can do *today*?
- Have they completed **Expected Barriers**? How did they find it? Did it bring anything up? Have they been able to come up with ACT strategies to overcome these barriers? Help them if need be.
- Have they completed **Valued Living**? How did they find it? Did it bring anything up? This exercise will carry on after the end of the

guided self-help.

- Anything they have struggled with/not understood? Clarify
- How are they feeling? Any safeguarding concerns?
- If research client, then prompt to complete measures on time
- Confirm what will happen next (e.g. Discharge/waiting list/do they need to meet Kate for research meeting).

## Appendix I

### Outcome Measure Permission

---

**From:** Allocated correspondent for the MHC-SF

**Sent:** 18 May 2017 18:12

**Subject:** RE: Permission to use MHC-Short Form in research

Kate,

You can indeed use the mhc-sf. I have attached a copy in case you need one.

---

**From:** Allocated correspondent for the SAS-SR-M

**Sent:** 14 September 2017 11:19

**Subject:** RE: Permission to use SAS-SR-Modified

Dear Kate

Thank you for your email. You may use the Modified Social Adjustments Scale (published in the BJPsych) for your research.

Please ensure that you include a full reference.

---



### **Use of the DASS-21:**

Retrieved from:

[http://www2.psy.unsw.edu.au/dass/DASSFAQ.htm#\\_3.\\_\\_\\_\\_How\\_do\\_I\\_get\\_permission\\_to\\_use\\_](http://www2.psy.unsw.edu.au/dass/DASSFAQ.htm#_3.____How_do_I_get_permission_to_use_)

*“The DASS questionnaire is public domain, and so permission is not needed to use it. The DASS questionnaires and scoring key may be downloaded from the DASS website and copied without restriction (go to Download page).*

*The DASS questionnaires and scoring key may also be distributed, published or made available electronically, with the restrictions that:*

- a) the scales are not modified,*
  - b) the scales are not sold for profit,*
  - c) the intended audience is researchers or health professionals rather than end users, and*
  - d) reference is included to the DASS website: [www.psy.unsw.edu.au/dass/](http://www.psy.unsw.edu.au/dass/)”*
- 

### **Use of the CompACT:**

Retrieved from:

[https://contextualscience.org/comprehensive\\_assessment\\_of\\_acceptance\\_and\\_commitment](https://contextualscience.org/comprehensive_assessment_of_acceptance_and_commitment)

*“The CompACT is free to use for clinical and research purposes: we have attached the CompACT response form and a scoring calculator below. We hope it will prove to be a useful measure, building on the promise of our initial findings.”*

---

### **Use of the AAQ-II:**

Retrieved from:

[https://contextualscience.org/acceptance\\_action\\_questionnaire\\_aaq\\_and\\_variations](https://contextualscience.org/acceptance_action_questionnaire_aaq_and_variations)

*“Permission is given to use the AAQ-II for research and with clients, and does not require additional author permission. If, however, the AAQ-II was to be used in any type of money making enterprise (e.g., consultancy to organizations), seeking permission is requested by the authors. - Frank Bond, Goldsmiths College, London.”*

---

## **Appendix J**

### **Outcome Measures**



### **Guided Acceptance and Commitment Therapy (ACT) self-help for clients on a waiting list for psychological therapy**

#### **Outcome Measures**

**Version 2 (05/01/17)**

As part of the research, participants are required to complete the Outcome Measures on a weekly basis. Therefore, please find enclosed the measures that you are required to complete this week.

**REF NUMBER:** \_\_\_\_\_

**DATE DUE:** \_\_\_\_\_

**DATE COMPLETED:** \_\_\_\_\_

Please tick as you complete each measure:

- ☐ Mental Health Continuum – Short Form
- ☐ Depression, Anxiety, and Stress Scale
- ☐ Social Anxiety Scale
- ☐ CompACT
- ☐ AAQ-II (Week 5 only)

Once all measures are completed, please return by post in the enclosed pre-paid envelope to the following address:

**Kate French**  
**Department of Clinical Psychology**  
**Bridge House**  
**University of Lincoln**  
**Brayford Pool**  
**Lincoln**  
**Lincolnshire**  
**LN6 7TS**

If you have any questions about how to complete the outcome measures,  
please contact Kate French via email on **[11591146@students.lincoln.ac.uk](mailto:11591146@students.lincoln.ac.uk)**.

### Outcome Measure 1: Mental Health Continuum – Short Form (MHC-SF)

| During the last week, how often did you feel...                                     | Never                      | About Once a Week          | Once or Twice              | About 2 or 3 Times a Week  | Almost Every Day           | Every Day                  |
|---|----------------------------|----------------------------|----------------------------|----------------------------|----------------------------|----------------------------|
| 1. Happy  | <input type="checkbox"/> 0 | <input type="checkbox"/> 1 | <input type="checkbox"/> 2 | <input type="checkbox"/> 3 | <input type="checkbox"/> 4 | <input type="checkbox"/> 5 |
| 2. Interested in life   | <input type="checkbox"/> 0 | <input type="checkbox"/> 1 | <input type="checkbox"/> 2 | <input type="checkbox"/> 3 | <input type="checkbox"/> 4 | <input type="checkbox"/> 5 |
| 3. Satisfied with life  | <input type="checkbox"/> 0 | <input type="checkbox"/> 1 | <input type="checkbox"/> 2 | <input type="checkbox"/> 3 | <input type="checkbox"/> 4 | <input type="checkbox"/> 5 |
| 4. That you had something important to contribute to society                        | <input type="checkbox"/> 0 | <input type="checkbox"/> 1 | <input type="checkbox"/> 2 | <input type="checkbox"/> 3 | <input type="checkbox"/> 4 | <input type="checkbox"/> 5 |
| 5. That you belonged to a community (like a social group, or your neighbourhood)    | <input type="checkbox"/> 0 | <input type="checkbox"/> 1 | <input type="checkbox"/> 2 | <input type="checkbox"/> 3 | <input type="checkbox"/> 4 | <input type="checkbox"/> 5 |
| 6. That our society is a good place, or is becoming a better place, for all people  | <input type="checkbox"/> 0 | <input type="checkbox"/> 1 | <input type="checkbox"/> 2 | <input type="checkbox"/> 3 | <input type="checkbox"/> 4 | <input type="checkbox"/> 5 |
| 7. That people are basically good   | <input type="checkbox"/> 0 | <input type="checkbox"/> 1 | <input type="checkbox"/> 2 | <input type="checkbox"/> 3 | <input type="checkbox"/> 4 | <input type="checkbox"/> 5 |
| 8. That the way our society works makes sense to you                                | <input type="checkbox"/> 0 | <input type="checkbox"/> 1 | <input type="checkbox"/> 2 | <input type="checkbox"/> 3 | <input type="checkbox"/> 4 | <input type="checkbox"/> 5 |
| 9. That you liked most parts of your personality                                    | <input type="checkbox"/> 0 | <input type="checkbox"/> 1 | <input type="checkbox"/> 2 | <input type="checkbox"/> 3 | <input type="checkbox"/> 4 | <input type="checkbox"/> 5 |
| 10. Good at managing the responsibilities of your daily life                        | <input type="checkbox"/> 0 | <input type="checkbox"/> 1 | <input type="checkbox"/> 2 | <input type="checkbox"/> 3 | <input type="checkbox"/> 4 | <input type="checkbox"/> 5 |
| 11. That you had warm and trusting relationships with others                        | <input type="checkbox"/> 0 | <input type="checkbox"/> 1 | <input type="checkbox"/> 2 | <input type="checkbox"/> 3 | <input type="checkbox"/> 4 | <input type="checkbox"/> 5 |
| 12. That you had experiences that challenged you to grow and become a better person | <input type="checkbox"/> 0 | <input type="checkbox"/> 1 | <input type="checkbox"/> 2 | <input type="checkbox"/> 3 | <input type="checkbox"/> 4 | <input type="checkbox"/> 5 |
| 13. Confident to think or express your own ideas and opinions                       | <input type="checkbox"/> 0 | <input type="checkbox"/> 1 | <input type="checkbox"/> 2 | <input type="checkbox"/> 3 | <input type="checkbox"/> 4 | <input type="checkbox"/> 5 |
| 14. That your life has a sense of direction or meaning to it                        | <input type="checkbox"/> 0 | <input type="checkbox"/> 1 | <input type="checkbox"/> 2 | <input type="checkbox"/> 3 | <input type="checkbox"/> 4 | <input type="checkbox"/> 5 |

**Outcome Measure 2: Depression, Anxiety, and Stress Scale – 21 (DASS-21)**

| <b>Over the last week how much did the following statements apply to you?</b>  | <b>Not at all</b>          | <b>To some degree</b>      | <b>To a considerable degree</b> | <b>Very much</b>           |
|--|----------------------------|----------------------------|---------------------------------|----------------------------|
| 1. I found it hard to wind down  | <input type="checkbox"/> 0 | <input type="checkbox"/> 1 | <input type="checkbox"/> 2      | <input type="checkbox"/> 3 |
| 2. I was aware of dryness of my mouth  | <input type="checkbox"/> 0 | <input type="checkbox"/> 1 | <input type="checkbox"/> 2      | <input type="checkbox"/> 3 |
| 3. I couldn't seem to experience any positive feeling at all   | <input type="checkbox"/> 0 | <input type="checkbox"/> 1 | <input type="checkbox"/> 2      | <input type="checkbox"/> 3 |
| 4. I experienced breathing difficulty (e.g. excessively rapid breathing, breathlessness in the absence of physical exertion) | <input type="checkbox"/> 0 | <input type="checkbox"/> 1 | <input type="checkbox"/> 2      | <input type="checkbox"/> 3 |
| 5. I found it difficult to work up the initiative to do things   | <input type="checkbox"/> 0 | <input type="checkbox"/> 1 | <input type="checkbox"/> 2      | <input type="checkbox"/> 3 |
| 6. I tended to over-react to situations  | <input type="checkbox"/> 0 | <input type="checkbox"/> 1 | <input type="checkbox"/> 2      | <input type="checkbox"/> 3 |
| 7. I experienced trembling (e.g. in the hands)   | <input type="checkbox"/> 0 | <input type="checkbox"/> 1 | <input type="checkbox"/> 2      | <input type="checkbox"/> 3 |
| 8. I felt that I was using a lot of nervous energy   | <input type="checkbox"/> 0 | <input type="checkbox"/> 1 | <input type="checkbox"/> 2      | <input type="checkbox"/> 3 |
| 9. I was worried about situations in which I might panic and make a fool of myself   | <input type="checkbox"/> 0 | <input type="checkbox"/> 1 | <input type="checkbox"/> 2      | <input type="checkbox"/> 3 |
| 10. I felt that I had nothing to look forward to   | <input type="checkbox"/> 0 | <input type="checkbox"/> 1 | <input type="checkbox"/> 2      | <input type="checkbox"/> 3 |
| 11. I found myself getting agitated  | <input type="checkbox"/> 0 | <input type="checkbox"/> 1 | <input type="checkbox"/> 2      | <input type="checkbox"/> 3 |
| 12. I found it difficult to relax  | <input type="checkbox"/> 0 | <input type="checkbox"/> 1 | <input type="checkbox"/> 2      | <input type="checkbox"/> 3 |
| 13. I felt down-hearted and blue   | <input type="checkbox"/> 0 | <input type="checkbox"/> 1 | <input type="checkbox"/> 2      | <input type="checkbox"/> 3 |
| 14. I was intolerant of anything that kept me from getting on with what I was doing  | <input type="checkbox"/> 0 | <input type="checkbox"/> 1 | <input type="checkbox"/> 2      | <input type="checkbox"/> 3 |
| 15. I felt I was close to panic  | <input type="checkbox"/> 0 | <input type="checkbox"/> 1 | <input type="checkbox"/> 2      | <input type="checkbox"/> 3 |
| 16. I was unable to become enthusiastic about anything   | <input type="checkbox"/> 0 | <input type="checkbox"/> 1 | <input type="checkbox"/> 2      | <input type="checkbox"/> 3 |
| 17. I felt I wasn't worth much as a person   | <input type="checkbox"/> 0 | <input type="checkbox"/> 1 | <input type="checkbox"/> 2      | <input type="checkbox"/> 3 |
| 18. I felt that I was rather touchy  | <input type="checkbox"/> 0 | <input type="checkbox"/> 1 | <input type="checkbox"/> 2      | <input type="checkbox"/> 3 |
| 19. I was aware of my heart in the absence of physical exertion (e.g. sense of heart rate increase, heart missing a beat)    | <input type="checkbox"/> 0 | <input type="checkbox"/> 1 | <input type="checkbox"/> 2      | <input type="checkbox"/> 3 |

20. I felt scared without any good reason ☐0 ☐1 ☐2 ☐3

21. I felt that life was meaningless ☐0 ☐1 ☐2 ☐3

**Outcome Measure 3: Social Adjustment Scale – Self-Report – Modified (SAS-SR-M)**

Work outside the home: the following questions are about how things have been in your job (full or half-time – if you do not have a job go straight to the next section) – Over the last week have you:

|   | Not<br>at<br>all           | Only<br>Occasionally       | Sometimes                  | Often                      | Most<br>or all<br>of the<br>time |
|---|----------------------------|----------------------------|----------------------------|----------------------------|----------------------------------|
| 1. Missed any time from work?                         | <input type="checkbox"/> 1 | <input type="checkbox"/> 2 | <input type="checkbox"/> 3 | <input type="checkbox"/> 4 | <input type="checkbox"/> 5       |
| 2. Been doing your job well?                          | <input type="checkbox"/> 5 | <input type="checkbox"/> 4 | <input type="checkbox"/> 3 | <input type="checkbox"/> 2 | <input type="checkbox"/> 1       |
| 3. Felt ashamed of how you have been doing your work? | <input type="checkbox"/> 1 | <input type="checkbox"/> 2 | <input type="checkbox"/> 3 | <input type="checkbox"/> 4 | <input type="checkbox"/> 5       |
| 4. Got angry with or argued with people at work?      | <input type="checkbox"/> 1 | <input type="checkbox"/> 2 | <input type="checkbox"/> 3 | <input type="checkbox"/> 4 | <input type="checkbox"/> 5       |
| 5. Felt upset, worried or uncomfortable at work?      | <input type="checkbox"/> 1 | <input type="checkbox"/> 2 | <input type="checkbox"/> 3 | <input type="checkbox"/> 4 | <input type="checkbox"/> 5       |
| 6. Been finding your work interesting?                | <input type="checkbox"/> 5 | <input type="checkbox"/> 4 | <input type="checkbox"/> 3 | <input type="checkbox"/> 2 | <input type="checkbox"/> 1       |

Housework: the following questions are about how the housework has been – Over the last week have you:

|   | Not<br>at<br>all           | Only<br>Occasionally       | Sometimes                  | Often                      | Most<br>or all<br>of the<br>time |
|---|----------------------------|----------------------------|----------------------------|----------------------------|----------------------------------|
| 7. Done the necessary housework each day?                 | <input type="checkbox"/> 5 | <input type="checkbox"/> 4 | <input type="checkbox"/> 3 | <input type="checkbox"/> 2 | <input type="checkbox"/> 1       |
| 8. Been doing the housework each day?                     | <input type="checkbox"/> 5 | <input type="checkbox"/> 4 | <input type="checkbox"/> 3 | <input type="checkbox"/> 2 | <input type="checkbox"/> 1       |
| 9. Felt ashamed of how you have been doing the housework? | <input type="checkbox"/> 1 | <input type="checkbox"/> 2 | <input type="checkbox"/> 3 | <input type="checkbox"/> 4 | <input type="checkbox"/> 5       |

|  |                            |                            |                            |                            |                            |
|--|----------------------------|----------------------------|----------------------------|----------------------------|----------------------------|
| 10. Got angry with or argued with salespeople/tradesmen/ neighbours? | <input type="checkbox"/> 1 | <input type="checkbox"/> 2 | <input type="checkbox"/> 3 | <input type="checkbox"/> 4 | <input type="checkbox"/> 5 |
| 11. Felt upset, worried or uncomfortable while doing the housework?  | <input type="checkbox"/> 1 | <input type="checkbox"/> 2 | <input type="checkbox"/> 3 | <input type="checkbox"/> 4 | <input type="checkbox"/> 5 |
| 12. Found the housework boring, unpleasant or a drudge               | <input type="checkbox"/> 1 | <input type="checkbox"/> 2 | <input type="checkbox"/> 3 | <input type="checkbox"/> 4 | <input type="checkbox"/> 5 |

**Social and leisure activities: the following questions are about your friends and what you have been doing in your spare time – over the last week have you:**

|   | Not<br>at<br>all           | Only<br>Occasionally       | Sometimes                  | Often                      | Most<br>or all<br>of the<br>time |
|---|----------------------------|----------------------------|----------------------------|----------------------------|----------------------------------|
| 13. Been in touch with any of your friends?   | <input type="checkbox"/> 5 | <input type="checkbox"/> 4 | <input type="checkbox"/> 3 | <input type="checkbox"/> 2 | <input type="checkbox"/> 1       |
| 14. Been able to talk about your feelings openly with your friends?                               | <input type="checkbox"/> 5 | <input type="checkbox"/> 4 | <input type="checkbox"/> 3 | <input type="checkbox"/> 2 | <input type="checkbox"/> 1       |
| 15. Done things socially with your friends (e.g. visiting, entertaining, and going out together?) | <input type="checkbox"/> 5 | <input type="checkbox"/> 4 | <input type="checkbox"/> 3 | <input type="checkbox"/> 2 | <input type="checkbox"/> 1       |
| 16. Spent your available time on hobbies or spare interests?                                      | <input type="checkbox"/> 5 | <input type="checkbox"/> 4 | <input type="checkbox"/> 3 | <input type="checkbox"/> 2 | <input type="checkbox"/> 1       |
| 17. Got angry with or argued with your friends?   | <input type="checkbox"/> 1 | <input type="checkbox"/> 2 | <input type="checkbox"/> 3 | <input type="checkbox"/> 4 | <input type="checkbox"/> 5       |
| 18. Been offended or had your feelings hurt by your friends?                                      | <input type="checkbox"/> 1 | <input type="checkbox"/> 2 | <input type="checkbox"/> 3 | <input type="checkbox"/> 4 | <input type="checkbox"/> 5       |
| 19. Felt ill at ease, tense or shy when with people?  | <input type="checkbox"/> 1 | <input type="checkbox"/> 2 | <input type="checkbox"/> 3 | <input type="checkbox"/> 4 | <input type="checkbox"/> 5       |
| 20. Felt lonely and wished for companionship?   | <input type="checkbox"/> 1 | <input type="checkbox"/> 2 | <input type="checkbox"/> 3 | <input type="checkbox"/> 4 | <input type="checkbox"/> 5       |
| 21. Felt bored in your free time?   | <input type="checkbox"/> 1 | <input type="checkbox"/> 2 | <input type="checkbox"/> 3 | <input type="checkbox"/> 4 | <input type="checkbox"/> 5       |



**Extended family:** the following questions are about your extended family, i.e. parents, or brothers, sisters, in-laws, and children not living at home (Please do not include your partner or children living at home) – over the last week have you:

|   | Not<br>at<br>all           | Only<br>Occasionally       | Sometimes                  | Often                      | Most<br>or all<br>of the<br>time |
|---|----------------------------|----------------------------|----------------------------|----------------------------|----------------------------------|
| 22. Got angry with or argued with any of your relatives?              | <input type="checkbox"/> 1 | <input type="checkbox"/> 2 | <input type="checkbox"/> 3 | <input type="checkbox"/> 4 | <input type="checkbox"/> 5       |
| 23. Made an effort to keep in touch with your relatives?              | <input type="checkbox"/> 5 | <input type="checkbox"/> 4 | <input type="checkbox"/> 3 | <input type="checkbox"/> 2 | <input type="checkbox"/> 1       |
| 24. Been able to talk about your feelings openly with your relatives? | <input type="checkbox"/> 5 | <input type="checkbox"/> 4 | <input type="checkbox"/> 3 | <input type="checkbox"/> 2 | <input type="checkbox"/> 1       |
| 25. Depended on your relatives for help, advice or friendship?        | <input type="checkbox"/> 5 | <input type="checkbox"/> 4 | <input type="checkbox"/> 3 | <input type="checkbox"/> 2 | <input type="checkbox"/> 1       |
| 26. Been feeling that you have let your relatives down at any time?   | <input type="checkbox"/> 1 | <input type="checkbox"/> 2 | <input type="checkbox"/> 3 | <input type="checkbox"/> 4 | <input type="checkbox"/> 5       |
| 27. Been feeling that your relatives have let you down at any time?   | <input type="checkbox"/> 1 | <input type="checkbox"/> 2 | <input type="checkbox"/> 3 | <input type="checkbox"/> 4 | <input type="checkbox"/> 5       |

**Marital:** the following questions are about how things have been between you and your partner. If you are not living with your partner or living with a person in a steady relationship, go straight on to the next section. Over the past week have you:

|   | Not<br>at<br>all           | Only<br>Occasionally       | Sometimes                  | Often                      | Most<br>or all<br>of the<br>time |
|---|----------------------------|----------------------------|----------------------------|----------------------------|----------------------------------|
| 28. Got angry with each other or argued with one another?             | <input type="checkbox"/> 1 | <input type="checkbox"/> 2 | <input type="checkbox"/> 3 | <input type="checkbox"/> 4 | <input type="checkbox"/> 5       |
| 29. Been able to talk about your feelings/problems with your partner? | <input type="checkbox"/> 5 | <input type="checkbox"/> 4 | <input type="checkbox"/> 3 | <input type="checkbox"/> 2 | <input type="checkbox"/> 1       |
| 30. Been making most of the decisions at home yourself?               | <input type="checkbox"/> 5 | <input type="checkbox"/> 4 | <input type="checkbox"/> 3 | <input type="checkbox"/> 2 | <input type="checkbox"/> 1       |

|  |                            |                            |                            |                            |                            |
|--|----------------------------|----------------------------|----------------------------|----------------------------|----------------------------|
| 31. Tended to give in and let your partner have their own way when there was a disagreement? | <input type="checkbox"/> 1 | <input type="checkbox"/> 2 | <input type="checkbox"/> 3 | <input type="checkbox"/> 4 | <input type="checkbox"/> 5 |
| 32. And your partner shared the responsibility for practical matters that have arisen?       | <input type="checkbox"/> 5 | <input type="checkbox"/> 4 | <input type="checkbox"/> 3 | <input type="checkbox"/> 2 | <input type="checkbox"/> 1 |
| 33. Had to depend on your partner to help you?   | <input type="checkbox"/> 1 | <input type="checkbox"/> 2 | <input type="checkbox"/> 3 | <input type="checkbox"/> 4 | <input type="checkbox"/> 5 |
| 34. Been feeling affectionate towards your partner?  | <input type="checkbox"/> 5 | <input type="checkbox"/> 4 | <input type="checkbox"/> 3 | <input type="checkbox"/> 2 | <input type="checkbox"/> 1 |
| 35. And your partner had sexual relations? About how many times?                             | <input type="checkbox"/> 5 | <input type="checkbox"/> 4 | <input type="checkbox"/> 3 | <input type="checkbox"/> 2 | <input type="checkbox"/> 1 |
| 36. Had any problems during sexual intercourse (e.g. pain or difficulty with climax)?        | <input type="checkbox"/> 1 | <input type="checkbox"/> 2 | <input type="checkbox"/> 3 | <input type="checkbox"/> 4 | <input type="checkbox"/> 5 |
| 37. Enjoyed your sexual relations with your partner?   | <input type="checkbox"/> 5 | <input type="checkbox"/> 4 | <input type="checkbox"/> 3 | <input type="checkbox"/> 2 | <input type="checkbox"/> 1 |

**Parental: the following questions are about how things have been with your children (If you do not have children living at home, go straight to the next section) – Over the last week have you:**

|  | Not<br>at<br>all           | Only<br>Occasionally       | Sometimes                  | Often                      | Most<br>or all<br>of the<br>time |
|--|----------------------------|----------------------------|----------------------------|----------------------------|----------------------------------|
| 38. Been interested in your children's activities, e.g. school/friends/etc.? | <input type="checkbox"/> 5 | <input type="checkbox"/> 4 | <input type="checkbox"/> 3 | <input type="checkbox"/> 2 | <input type="checkbox"/> 1       |
| 39. Been able to talk and listen to your children?                           | <input type="checkbox"/> 5 | <input type="checkbox"/> 4 | <input type="checkbox"/> 3 | <input type="checkbox"/> 2 | <input type="checkbox"/> 1       |
| 40. Been shouting at or arguing with your children?                          | <input type="checkbox"/> 1 | <input type="checkbox"/> 2 | <input type="checkbox"/> 3 | <input type="checkbox"/> 4 | <input type="checkbox"/> 5       |
| 41. Been feeling affectionate towards your children?                         | <input type="checkbox"/> 5 | <input type="checkbox"/> 4 | <input type="checkbox"/> 3 | <input type="checkbox"/> 2 | <input type="checkbox"/> 1       |

**Family Unit:** the following questions are about how things have been with your immediate family, that is your partner and children at home. If you do not have an immediate family, please ignore this section. Over the past week have you:

|  | Not<br>at<br>all           | Only<br>Occasionally       | Sometimes                  | Often                      | Most<br>or all<br>of the<br>time |
|--|----------------------------|----------------------------|----------------------------|----------------------------|----------------------------------|
| 42. Been worrying more than necessary about things happening to your family? | <input type="checkbox"/> 1 | <input type="checkbox"/> 2 | <input type="checkbox"/> 3 | <input type="checkbox"/> 4 | <input type="checkbox"/> 5       |
| 43. Been feeling that you have let your immediate family down at all?        | <input type="checkbox"/> 1 | <input type="checkbox"/> 2 | <input type="checkbox"/> 3 | <input type="checkbox"/> 4 | <input type="checkbox"/> 5       |
| 44. Been feeling that your immediate family has let you down at all?         | <input type="checkbox"/> 1 | <input type="checkbox"/> 2 | <input type="checkbox"/> 3 | <input type="checkbox"/> 4 | <input type="checkbox"/> 5       |

#### Outcome Measure 4: Comprehensive Assessment of Acceptance and Commitment Therapy Processes (CompACT)

|   | Strongly<br>Disagree       | Mostly<br>Disagree         | Disagree                   | Neither<br>Agree or<br>Disagree | Agree                      | Mostly<br>Agree            | Strongly<br>Agree          |
|---|----------------------------|----------------------------|----------------------------|---------------------------------|----------------------------|----------------------------|----------------------------|
| 1. I can identify the things that really matter to me in life and pursue them                           | <input type="checkbox"/> 0 | <input type="checkbox"/> 1 | <input type="checkbox"/> 2 | <input type="checkbox"/> 3      | <input type="checkbox"/> 4 | <input type="checkbox"/> 5 | <input type="checkbox"/> 6 |
| 2. One of my big goals is to be free from painful emotions  | <input type="checkbox"/> 6 | <input type="checkbox"/> 5 | <input type="checkbox"/> 4 | <input type="checkbox"/> 3      | <input type="checkbox"/> 2 | <input type="checkbox"/> 1 | <input type="checkbox"/> 0 |
| 3. I rush through meaningful activities without being really attentive to them                          | <input type="checkbox"/> 6 | <input type="checkbox"/> 5 | <input type="checkbox"/> 4 | <input type="checkbox"/> 3      | <input type="checkbox"/> 2 | <input type="checkbox"/> 1 | <input type="checkbox"/> 0 |
| 4. I try to stay busy to keep thoughts or feelings from coming  | <input type="checkbox"/> 6 | <input type="checkbox"/> 5 | <input type="checkbox"/> 4 | <input type="checkbox"/> 3      | <input type="checkbox"/> 2 | <input type="checkbox"/> 1 | <input type="checkbox"/> 0 |
| 5. I act in ways that are consistent with how I wish to live my life                                    | <input type="checkbox"/> 0 | <input type="checkbox"/> 1 | <input type="checkbox"/> 2 | <input type="checkbox"/> 3      | <input type="checkbox"/> 4 | <input type="checkbox"/> 5 | <input type="checkbox"/> 6 |
| 6. I get so caught up in my thoughts that I am unable to do the things that I most want to do           | <input type="checkbox"/> 6 | <input type="checkbox"/> 5 | <input type="checkbox"/> 4 | <input type="checkbox"/> 3      | <input type="checkbox"/> 2 | <input type="checkbox"/> 1 | <input type="checkbox"/> 0 |
| 7. I make choices based on what is important to me, even if it is stressful                             | <input type="checkbox"/> 0 | <input type="checkbox"/> 1 | <input type="checkbox"/> 2 | <input type="checkbox"/> 3      | <input type="checkbox"/> 4 | <input type="checkbox"/> 5 | <input type="checkbox"/> 6 |
| 8. I tell myself that I shouldn't have certain thoughts   | <input type="checkbox"/> 6 | <input type="checkbox"/> 5 | <input type="checkbox"/> 4 | <input type="checkbox"/> 3      | <input type="checkbox"/> 2 | <input type="checkbox"/> 1 | <input type="checkbox"/> 0 |
| 9. I find it difficult to stay focused on what's happening in the present                               | <input type="checkbox"/> 6 | <input type="checkbox"/> 5 | <input type="checkbox"/> 4 | <input type="checkbox"/> 3      | <input type="checkbox"/> 2 | <input type="checkbox"/> 1 | <input type="checkbox"/> 0 |
| 10. I behave in line with my personal values  | <input type="checkbox"/> 0 | <input type="checkbox"/> 1 | <input type="checkbox"/> 2 | <input type="checkbox"/> 3      | <input type="checkbox"/> 4 | <input type="checkbox"/> 5 | <input type="checkbox"/> 6 |
| 11. I go out of my way to avoid situations that might bring difficult thoughts, feelings, or sensations | <input type="checkbox"/> 6 | <input type="checkbox"/> 5 | <input type="checkbox"/> 4 | <input type="checkbox"/> 3      | <input type="checkbox"/> 2 | <input type="checkbox"/> 1 | <input type="checkbox"/> 0 |
| 12. Even when doing the things that matter to me, I find myself doing them without paying attention     | <input type="checkbox"/> 6 | <input type="checkbox"/> 5 | <input type="checkbox"/> 4 | <input type="checkbox"/> 3      | <input type="checkbox"/> 2 | <input type="checkbox"/> 1 | <input type="checkbox"/> 0 |

|  | Strongly<br>Disagree       | Mostly<br>Disagree         | Disagree                   | Neither<br>Agree or<br>Disagree | Agree                      | Mostly<br>Agree            | Strongly<br>Agree          |
|--|----------------------------|----------------------------|----------------------------|---------------------------------|----------------------------|----------------------------|----------------------------|
| 13. I am willing to fully experience whatever thoughts, feelings, and sensations come up for me, without trying to change or defend against them | <input type="checkbox"/> 0 | <input type="checkbox"/> 1 | <input type="checkbox"/> 2 | <input type="checkbox"/> 3      | <input type="checkbox"/> 4 | <input type="checkbox"/> 5 | <input type="checkbox"/> 6 |
| 14. I undertake things that are meaningful to me, even when I find it hard to do so  | <input type="checkbox"/> 0 | <input type="checkbox"/> 1 | <input type="checkbox"/> 2 | <input type="checkbox"/> 3      | <input type="checkbox"/> 4 | <input type="checkbox"/> 5 | <input type="checkbox"/> 6 |
| 15. I work hard to keep out upsetting feelings   | <input type="checkbox"/> 6 | <input type="checkbox"/> 5 | <input type="checkbox"/> 4 | <input type="checkbox"/> 3      | <input type="checkbox"/> 2 | <input type="checkbox"/> 1 | <input type="checkbox"/> 0 |
| 16. I do jobs or tasks automatically, without being aware of what I'm doing  | <input type="checkbox"/> 6 | <input type="checkbox"/> 5 | <input type="checkbox"/> 4 | <input type="checkbox"/> 3      | <input type="checkbox"/> 2 | <input type="checkbox"/> 1 | <input type="checkbox"/> 0 |
| 17. I am able to follow my long-term plans including times when progress is slow   | <input type="checkbox"/> 0 | <input type="checkbox"/> 1 | <input type="checkbox"/> 2 | <input type="checkbox"/> 3      | <input type="checkbox"/> 4 | <input type="checkbox"/> 5 | <input type="checkbox"/> 6 |
| 18. Even when something is important to me, I'll rarely do it if there is a chance it will upset me  | <input type="checkbox"/> 6 | <input type="checkbox"/> 5 | <input type="checkbox"/> 4 | <input type="checkbox"/> 3      | <input type="checkbox"/> 2 | <input type="checkbox"/> 1 | <input type="checkbox"/> 0 |
| 19. It seems I am "running on automatic" without much awareness of what I'm doing  | <input type="checkbox"/> 6 | <input type="checkbox"/> 5 | <input type="checkbox"/> 4 | <input type="checkbox"/> 3      | <input type="checkbox"/> 2 | <input type="checkbox"/> 1 | <input type="checkbox"/> 0 |
| 20. Thoughts are just thoughts - they don't control what I do  | <input type="checkbox"/> 0 | <input type="checkbox"/> 1 | <input type="checkbox"/> 2 | <input type="checkbox"/> 3      | <input type="checkbox"/> 4 | <input type="checkbox"/> 5 | <input type="checkbox"/> 6 |
| 21. My values are really reflected in my behaviour   | <input type="checkbox"/> 0 | <input type="checkbox"/> 1 | <input type="checkbox"/> 2 | <input type="checkbox"/> 3      | <input type="checkbox"/> 4 | <input type="checkbox"/> 5 | <input type="checkbox"/> 6 |
| 22. I can take thoughts and feelings as they come, without attempting to control or avoid them   | <input type="checkbox"/> 0 | <input type="checkbox"/> 1 | <input type="checkbox"/> 2 | <input type="checkbox"/> 3      | <input type="checkbox"/> 4 | <input type="checkbox"/> 5 | <input type="checkbox"/> 6 |
| 23. I can keep going with something when it's important to me  | <input type="checkbox"/> 0 | <input type="checkbox"/> 1 | <input type="checkbox"/> 2 | <input type="checkbox"/> 3      | <input type="checkbox"/> 4 | <input type="checkbox"/> 5 | <input type="checkbox"/> 6 |

### Outcome Measure 5: Acceptance and Action Questionnaire - II (AAQ-II)

|   | Never True                 | Very Seldom True           | Seldom True                | Sometimes True             | Frequently True            | Almost Always True         | Always True                |
|---|----------------------------|----------------------------|----------------------------|----------------------------|----------------------------|----------------------------|----------------------------|
| 1. My painful experiences and memories make it difficult for me to live a life that I would value | <input type="checkbox"/> 1 | <input type="checkbox"/> 2 | <input type="checkbox"/> 3 | <input type="checkbox"/> 4 | <input type="checkbox"/> 5 | <input type="checkbox"/> 6 | <input type="checkbox"/> 7 |
| 2. I'm afraid of my feelings  | <input type="checkbox"/> 1 | <input type="checkbox"/> 2 | <input type="checkbox"/> 3 | <input type="checkbox"/> 4 | <input type="checkbox"/> 5 | <input type="checkbox"/> 6 | <input type="checkbox"/> 7 |
| 3. I worry about not being able to control my worries and feelings                                | <input type="checkbox"/> 1 | <input type="checkbox"/> 2 | <input type="checkbox"/> 3 | <input type="checkbox"/> 4 | <input type="checkbox"/> 5 | <input type="checkbox"/> 6 | <input type="checkbox"/> 7 |
| 4. My painful memories prevent me from having a fulfilling life                                   | <input type="checkbox"/> 1 | <input type="checkbox"/> 2 | <input type="checkbox"/> 3 | <input type="checkbox"/> 4 | <input type="checkbox"/> 5 | <input type="checkbox"/> 6 | <input type="checkbox"/> 7 |
| 5. Emotions cause problems in my life   | <input type="checkbox"/> 1 | <input type="checkbox"/> 2 | <input type="checkbox"/> 3 | <input type="checkbox"/> 4 | <input type="checkbox"/> 5 | <input type="checkbox"/> 6 | <input type="checkbox"/> 7 |
| 6. It seems like most people are handling their lives better than I am                            | <input type="checkbox"/> 1 | <input type="checkbox"/> 2 | <input type="checkbox"/> 3 | <input type="checkbox"/> 4 | <input type="checkbox"/> 5 | <input type="checkbox"/> 6 | <input type="checkbox"/> 7 |
| 7. Worries get in the way of my success   | <input type="checkbox"/> 1 | <input type="checkbox"/> 2 | <input type="checkbox"/> 3 | <input type="checkbox"/> 4 | <input type="checkbox"/> 5 | <input type="checkbox"/> 6 | <input type="checkbox"/> 7 |

**Outcome Measure 6: Clinical Outcomes in Routine Evaluation – Outcome Measure (CORE-OM)**

| <b>Over the last week...</b>                                       | Not at all                 | Only Occasionally          | Sometimes                  | Often                      | Most or all of the time    |
|--|----------------------------|----------------------------|----------------------------|----------------------------|----------------------------|
| 1. I have felt terribly alone and isolated                         | <input type="checkbox"/> 0 | <input type="checkbox"/> 1 | <input type="checkbox"/> 2 | <input type="checkbox"/> 3 | <input type="checkbox"/> 4 |
| 2. I have felt tense, anxious or nervous                           | <input type="checkbox"/> 0 | <input type="checkbox"/> 1 | <input type="checkbox"/> 2 | <input type="checkbox"/> 3 | <input type="checkbox"/> 4 |
| 3. I have felt I have someone to turn to for support when needed   | <input type="checkbox"/> 4 | <input type="checkbox"/> 3 | <input type="checkbox"/> 2 | <input type="checkbox"/> 1 | <input type="checkbox"/> 0 |
| 4. I have felt O.K. about myself                                   | <input type="checkbox"/> 4 | <input type="checkbox"/> 3 | <input type="checkbox"/> 2 | <input type="checkbox"/> 1 | <input type="checkbox"/> 0 |
| 5. I have felt totally lacking in energy and enthusiasm            | <input type="checkbox"/> 0 | <input type="checkbox"/> 1 | <input type="checkbox"/> 2 | <input type="checkbox"/> 3 | <input type="checkbox"/> 4 |
| 6. I have been physically violent to others                        | <input type="checkbox"/> 0 | <input type="checkbox"/> 1 | <input type="checkbox"/> 2 | <input type="checkbox"/> 3 | <input type="checkbox"/> 4 |
| 7. I have felt able to cope when things go wrong                   | <input type="checkbox"/> 4 | <input type="checkbox"/> 3 | <input type="checkbox"/> 2 | <input type="checkbox"/> 1 | <input type="checkbox"/> 0 |
| 8. I have been troubled by aches, pains or other physical problems | <input type="checkbox"/> 0 | <input type="checkbox"/> 1 | <input type="checkbox"/> 2 | <input type="checkbox"/> 3 | <input type="checkbox"/> 4 |
| 9. I have thought of hurting myself                                | <input type="checkbox"/> 0 | <input type="checkbox"/> 1 | <input type="checkbox"/> 2 | <input type="checkbox"/> 3 | <input type="checkbox"/> 4 |
| 10. Talking to people has felt too much for me                     | <input type="checkbox"/> 0 | <input type="checkbox"/> 1 | <input type="checkbox"/> 2 | <input type="checkbox"/> 3 | <input type="checkbox"/> 4 |
| 11. Tension and anxiety have prevented me doing important things   | <input type="checkbox"/> 0 | <input type="checkbox"/> 1 | <input type="checkbox"/> 2 | <input type="checkbox"/> 3 | <input type="checkbox"/> 4 |
| 12. I have been happy with the things I have done                  | <input type="checkbox"/> 4 | <input type="checkbox"/> 3 | <input type="checkbox"/> 2 | <input type="checkbox"/> 1 | <input type="checkbox"/> 0 |
| 13. I have been disturbed by unwanted thoughts and feelings        | <input type="checkbox"/> 0 | <input type="checkbox"/> 1 | <input type="checkbox"/> 2 | <input type="checkbox"/> 3 | <input type="checkbox"/> 4 |
| 14. I have felt like crying  | <input type="checkbox"/> 0 | <input type="checkbox"/> 1 | <input type="checkbox"/> 2 | <input type="checkbox"/> 3 | <input type="checkbox"/> 4 |
| 15. I have felt panic or terror                                    | <input type="checkbox"/> 0 | <input type="checkbox"/> 1 | <input type="checkbox"/> 2 | <input type="checkbox"/> 3 | <input type="checkbox"/> 4 |
| 16. I made plans to end my life                                    | <input type="checkbox"/> 0 | <input type="checkbox"/> 1 | <input type="checkbox"/> 2 | <input type="checkbox"/> 3 | <input type="checkbox"/> 4 |
| 17. I have felt overwhelmed by my problems                         | <input type="checkbox"/> 0 | <input type="checkbox"/> 1 | <input type="checkbox"/> 2 | <input type="checkbox"/> 3 | <input type="checkbox"/> 4 |

| <b>Over the last week...</b>  | Not at<br>all              | Only<br>Occasionally       | Sometimes                  | Often                      | Most or all<br>of the time |
|---|----------------------------|----------------------------|----------------------------|----------------------------|----------------------------|
| 18. I have had difficulty getting to sleep or staying asleep              | <input type="checkbox"/> 0 | <input type="checkbox"/> 1 | <input type="checkbox"/> 2 | <input type="checkbox"/> 3 | <input type="checkbox"/> 4 |
| 19. I have felt warmth or affection for someone                           | <input type="checkbox"/> 4 | <input type="checkbox"/> 3 | <input type="checkbox"/> 2 | <input type="checkbox"/> 1 | <input type="checkbox"/> 0 |
| 20. My problems have been impossible to put to one side                   | <input type="checkbox"/> 0 | <input type="checkbox"/> 1 | <input type="checkbox"/> 2 | <input type="checkbox"/> 3 | <input type="checkbox"/> 4 |
| 21. I have been able to do most things I needed to                        | <input type="checkbox"/> 4 | <input type="checkbox"/> 3 | <input type="checkbox"/> 2 | <input type="checkbox"/> 1 | <input type="checkbox"/> 0 |
| 22. I have threatened or intimidated another person                       | <input type="checkbox"/> 0 | <input type="checkbox"/> 1 | <input type="checkbox"/> 2 | <input type="checkbox"/> 3 | <input type="checkbox"/> 4 |
| 23. I have felt despairing or hopeless                                    | <input type="checkbox"/> 0 | <input type="checkbox"/> 1 | <input type="checkbox"/> 2 | <input type="checkbox"/> 3 | <input type="checkbox"/> 4 |
| 24. I have thought it would be better if I were dead                      | <input type="checkbox"/> 0 | <input type="checkbox"/> 1 | <input type="checkbox"/> 2 | <input type="checkbox"/> 3 | <input type="checkbox"/> 4 |
| 25. I have felt criticised by other people                                | <input type="checkbox"/> 0 | <input type="checkbox"/> 1 | <input type="checkbox"/> 2 | <input type="checkbox"/> 3 | <input type="checkbox"/> 4 |
| 26. I have thought I have no friends                                      | <input type="checkbox"/> 0 | <input type="checkbox"/> 1 | <input type="checkbox"/> 2 | <input type="checkbox"/> 3 | <input type="checkbox"/> 4 |
| 27. I have felt unhappy   | <input type="checkbox"/> 0 | <input type="checkbox"/> 1 | <input type="checkbox"/> 2 | <input type="checkbox"/> 3 | <input type="checkbox"/> 4 |
| 28. Unwanted images or memories have been distressing me                  | <input type="checkbox"/> 0 | <input type="checkbox"/> 1 | <input type="checkbox"/> 2 | <input type="checkbox"/> 3 | <input type="checkbox"/> 4 |
| 29. I have been irritable when with other people                          | <input type="checkbox"/> 0 | <input type="checkbox"/> 1 | <input type="checkbox"/> 2 | <input type="checkbox"/> 3 | <input type="checkbox"/> 4 |
| 30. I have thought I am to blame for my problems and difficulties         | <input type="checkbox"/> 0 | <input type="checkbox"/> 1 | <input type="checkbox"/> 2 | <input type="checkbox"/> 3 | <input type="checkbox"/> 4 |
| 31. I have felt optimistic about my future                                | <input type="checkbox"/> 4 | <input type="checkbox"/> 3 | <input type="checkbox"/> 2 | <input type="checkbox"/> 1 | <input type="checkbox"/> 0 |
| 32. I have achieved the things I wanted to                                | <input type="checkbox"/> 4 | <input type="checkbox"/> 3 | <input type="checkbox"/> 2 | <input type="checkbox"/> 1 | <input type="checkbox"/> 0 |
| 33. I have felt humiliated or shamed by other people                      | <input type="checkbox"/> 0 | <input type="checkbox"/> 1 | <input type="checkbox"/> 2 | <input type="checkbox"/> 3 | <input type="checkbox"/> 4 |
| 34. I have hurt myself physically or taken dangerous risks with my health | <input type="checkbox"/> 0 | <input type="checkbox"/> 1 | <input type="checkbox"/> 2 | <input type="checkbox"/> 3 | <input type="checkbox"/> 4 |



## **Appendix K**

### **Semi-Structured Change Interview**



### **Guided Acceptance and Commitment Therapy (ACT) self-help for clients on a waiting list for psychological therapy**

Semi-Structured Interview Format

Version 1

Date: 25/11/16

**The following questions will be used to guide the topics of conversation  
within the post-intervention interview:**

- Did you find the intervention useful? If so, why?
- What changes have you noticed in your levels of depression?
- What changes have you noticed in your levels of anxiety?
- What changes have you noticed in your well-being?
- What changes have you noticed in your life-functioning?
- What were the best parts of the intervention?
- What were the worse parts of the intervention?
- If you have experienced any changes, when did these changes occur?
- Do you feel there were any other possible explanations for these changes? If so, what?
- Have you got any concerns regarding any part of the intervention?
- How could these concerns be resolved?



# Guided ACT Self-Help: A case series approach

Kate French, Nima Golijani-Moghaddam, Thomas Schröder

Trent Doctorate in Clinical Psychology,  
Universities of Lincoln and Nottingham, UK

Rebecca Blacker

Lincolnshire Partnership NHS Foundation Trust (LPFT)



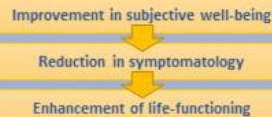
UNIVERSITY OF  
LINCOLN



University of  
Nottingham  
UK | CHINA | MALAYSIA

## Introduction

- Waiting lists for step-4 clinical psychology services within LPFT are high
- Research suggests improvements in mental health occur over three successive phases<sup>1</sup>:



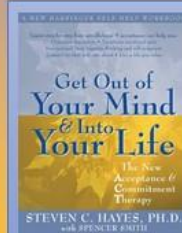
- A waiting list intervention could initiate this process and improve outcomes of later therapy
- Acceptance and Commitment Therapy (ACT) argues that it improves an individual's mental health by increasing an individual's psychological flexibility via six core processes<sup>2</sup>:



- ACT guided self-help has been shown within Randomised Controlled Trials to have small to medium effect sizes in reducing experiences of anxiety and depression<sup>3</sup>
- However, do the outcomes of the intervention (a) follow the predicted phases of change and (b) create these changes via the ACT core processes?

## Aims

- To adapt an ACT self-help book for use within a guided self-help intervention
- To determine if the intervention follows the predicted phases of change
- To determine whether ACT processes account for any changes observed



## The Adaptation

- The self-help book *Get out of your Mind and into your Life*<sup>4</sup> was adapted (Language changed for UK population; Split into ten parts; "Scripts" written for weekly 30-minute phone calls).
- Adaptions passed fidelity checks and feedback sought from a focus group of individuals with lived experience of mental health difficulties

## Method

### The Design

- 7 participants recruited from LPFT's step-4 clinical psychology waiting lists
- Multiple-baseline Single-Case Experimental Design (see figure below)
- 3 participants completed

### Outcome Measures

#### Weekly:

- Psychological flexibility (Comprehensive Assessment of ACT Processes)
- Subjective well-being (Mental Health Continuum – Short Form)
- Symptomatology (Depression, Anxiety, and Stress Scale – 21)
- Life-functioning (Social Adjustment Scale – Self-Report – Modified)

#### Other:

- Acceptance and Action Questionnaire – II (Pre, mid, post)
- Clinical Outcomes in Routine Evaluation (pre, post)

### Recruitment

Initial assessment at service  
Exclusion/Inclusion criteria applied  
Consent gained for contact

### Pre-Intervention Meeting

Consent gained for participation  
Initial outcome measures gathered

### Baseline Period

Randomised to baseline of either three, four, or five weeks  
Outcome measures taken weekly via post or online

### Intervention Period – Ten Weeks

Monday: Receive chapters of book  
Thursday: 30-minute guided phone call with Assistant Psychologist  
Sunday: Complete outcome measures

### Post-Intervention Meeting

Outcome measures taken final time  
Semi-structured interview about experienced changes

## Results\*

### Pre-, Mid-, and Post-Intervention Scores (Figure 1)

- Two participants showed clinically significant change in psychological flexibility, well-being, and symptomatology. No participant showed clinically significant change in life-functioning.
- Average percentage improvement: well-being 131.86%, symptomatology 32.01%, life-functioning 12.81%.

### Time-Series Scores (Figure 2; Table 1)

- Consistent reliable change occurred first in psychological flexibility, then symptomatology, then well-being.
- Percentage of non-overlapping data (PND) indicated that two participants had improved well-being, with one participant having improved psychological flexibility and symptomatology. No efficacy found for life-functioning.

### Attributions and Feedback (Post-Intervention Interview)

- Participants mostly attributed positive changes to the intervention and negative changes to life events. All stated the phone calls were the most helpful aspect of the intervention.
- All participants suggested that book needs language adaptations to be more accessible.

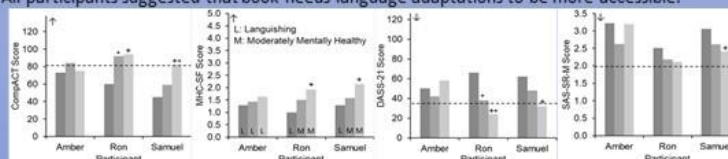


Figure 1. Outcome measure scores at pre-, mid-, and post-intervention time points; \* Pre = Mid = Post; \* indicates reliable change from previous time-point; + indicates reliable change from pre-intervention time-point; - - indicates clinical cut-offs; Arrows indicate direction of improvement

Table 1. PND interpretations

| Outcome                   | Amber         | Ron              | Samuel               |
|---------------------------|---------------|------------------|----------------------|
| Psychological flexibility | Not effective | Not effective    | Moderately effective |
| Well-being                | Not effective | Highly effective | Minimally effective  |
| Symptomatology            | Not effective | Not effective    | Minimally effective  |
| Life-functioning          | Not effective | Not effective    | Not effective        |

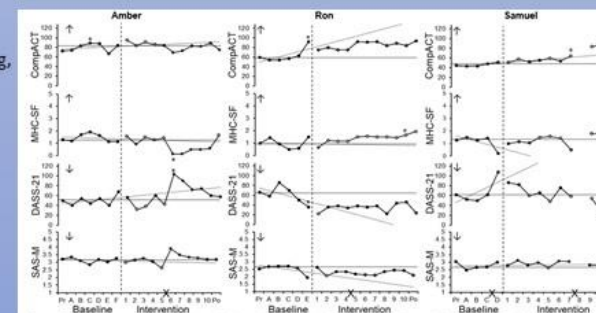


Figure 2. Weekly Scores over Baseline and Intervention; — Total scores; — Baseline median; - - Predicted trendline; ○ Scores meeting DC indicating improvement; ◆ Scores meeting DC indicating decline; X Life event; \* First score meeting consistent reliable change criteria; Pr = Pre-intervention; A-F = Baseline time-points; 1-10 = Intervention time-points; Po = Post-intervention; Arrows indicate direction of improvement; CompACT = Comprehensive Assessment of Acceptance and Commitment Therapy Processes; DAS-21 = Depression, Anxiety, and Stress Scale – 21; MHC-SF = Mental Health Continuum – Short Form; SAS-SR = Social Adjustment Scale – Self Report – Modified

## Implications

- Guided ACT self-help improves psychological flexibility, well-being, and symptomatology
- Results not replicated across minimum of three participants, limiting generalisability
- Low uptake and high attrition rate indicates low feasibility
- Predictions of phase model are partially supported within this intervention
- Link between psychological flexibility and outcomes is mostly supported
- Phone calls viewed as most helpful component – likely an essential component to the interventions efficacy
- Utility of single-case design supported - need for further research to determine replicability
- Intervention needs amendments prior to future implementation

## References

- Howard, K.I., Lueger, R.J., Maling, M.S., & Martinovich, Z. (1993). A phase model of psychotherapy outcome: Causal mediation of change. *Journal of Consulting and Clinical Psychology*, 61(4), 678-685. <https://doi.org/10.1037/0022-006X.61.4.678>
- Hayes, S.C., Strosahl, K., & Wilson, K. (2013). *Acceptance and Commitment Therapy: Understanding and Treating Human Suffering*. New York: Guilford Press
- French, K., Golijani-Moghaddam, N., & Schröder, T. (2017). What is the evidence for the efficacy of self-help Acceptance and Commitment Therapy? A systematic review and meta-analysis. *Journal of Contextual Behavioural Science*, 6(4), 360-374. <https://doi.org/10.1016/j.jcbs.2017.08.002>
- Hayes, S.C. & Smith, S. (2005). *Get Out of your Mind and into your Life. The New Acceptance and Commitment Therapy*. Oakland, CA: New Harbinger Publications, Inc.

\*Pseudonyms used for confidentiality